

County
Borough of Derby.



TO THE DERBY SANITARY AUTHORITY.

SEVENTEENTH

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH,

FOR THE

YEAR 1893.

DERBY:

RICHARD KEENE, PRINTER, IRON GATE.

E R R A T A.

Page 21, line 7, instead of "I," read "your Medical Officer."
,, 34, line 27, instead of "manurical," read "manurial."

A faint, light-colored watermark or background image of a classical building with four prominent columns is visible across the page.

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TO THE
Chairman and Members of the Sanitary Committee
OF THE
COUNTY BOROUGH OF DERBY.

GENTLEMEN,

Your Medical Officer has great pleasure in presenting to you his Seventeenth Annual Report on the health of the Borough of Derby for the year 1893.

It will be satisfactory to the Committee to learn that the Borough still maintains, so far as mortality statistics are concerned, a high position amongst the 33 large towns of England.

Last year Derby was bracketed with Portsmouth, with a death rate of 18.2, and only three towns, viz.: Croydon, Huddersfield, and Halifax were credited with a lower one. As regards its infant mortality Derby held fourth place, and sixth as regards its Zymotic mortality. The average death rate for the 33 large towns was 21.6, so that the death rate of Derby was less than it by 3.4.

Small Pox continued throughout the year, and would inevitably have assumed serious proportions, had it not been for the Borough Hospital finding accommodation for the cases as they arose, and so separating and isolating the sick from the healthy.

The year 1893 will be memorable for an asserted Cholera outbreak in Derby, the first that has occurred during your Medical Officer's official career. It began and ended in a single case, full details of which appear further on.

Typhoid Fever was very prevalent, and so was Diarrhoea, but this prevalence was accounted for by the year 1893 being an exceptionally favourable one for these two diseases, and the country generally suffered in like manner with Derby.

Influenza does not appear to have finished its course as yet, and

while Influenza conditions (whatever they may be) exist, it must be a matter for consolation, that the general death-rate of Derby is no higher than 18.2.

Your Medical Officer hopes, that the various matters of a sanitary nature, which are touched upon in the report, will be not only a source of interest to the Committee, but they will be made a foundation upon which further sanitation may be grounded, while continuing those already begun, which have undoubtedly proved of very great benefit to the health of the inhabitants of the Borough.

Your Medical Officer begs especially to thank the Chairman, Mr. Alderman Harrison, for his unfailing kindness and courtesy to him, as well as for the very valuable help he always ungrudgingly bestows upon him. He also begs to thank the members of the Sanitary Committee for their kind attention to any recommendations he may bring forward, and for the support which they usually accord to him. In every kind of occupation, encouragement is always most acceptable, but never more so, than when one is struggling to do a duty amongst great difficulties and obstacles, greater often by reason of obstinacy engendered by ignorance, rather than by wilful and spiteful obstruction.

R E P O R T.

POPULATION.

The Registrar General estimated the population of the County Borough of Derby in 1893 to be 97,341; which number shows an increase of 1,433 on the 1892 population.

MARRIAGES.

There were 806 marriages during the year, but these were less by 89 than those in 1892. The marriage rate was 8.2 per 1,000 persons living, and was 1.1 less than the rate for 1892, and .8 less than the average for the ten years, 1881 to 1890.

BIRTHS.

There were 3,123 births registered, and these as follows:—

	<i>Males.</i>	<i>Females.</i>	<i>Total.</i>
Legitimate ...	... 1,552	... 1,452 = 3,004	}
Illegitimate ...	... 60	... 59 = 119	} 3,123

The birth rate was 32.0 per 1,000 persons living. In 1892 it was 31.6; in 1891, 30.5; and in 1890, 28.9; so that the progressive increase of the rate during the three previous years was maintained in 1893.

The birth rate for the 33 large towns of England averaged 31.9.

The natural increase of population during 1893 by excess of births over deaths was 1,351.

DEATHS.

During 1893 there occurred 1,772 deaths, viz., of males 900 and of females 872. The ratio of deaths of males to females was as 103 to 100.

The death rate was 18.2 per 1,000 persons living, and it was less by .1 than the rate in 1892, and by .8 than the average death rate for the ten years, 1881 to 1890. In the 33 large towns the death rate averaged 21.6.

In the Workhouse the number of deaths that occurred was 103, as against 86 in the previous year.

In the Royal Infirmary 78 deaths took place, of which 29, or 37.1 per cent., were those of strangers.

In the Children's Hospital 14 deaths were recorded, of which three were strangers, or 21 per cent.

In the Borough Hospital there were seven deaths from Small Pox, and 35 deaths took place in the Borough Asylum.

In the Normanton District (population 2,970) there were 56 deaths, which gives a death rate of 18.8.

In the Walker Lane District (population 2,148) there were 52 deaths, showing a rate of 24.1. The death rate for 1892 was 27.0.

The number of uncertified deaths was 14, and was equal to .79 per cent. of total deaths.

The number of inquests held was 149, as against 153 in the previous year.

The average age at death of the 1,772 persons who died was $30\frac{1}{2}$ years. The largest number of deaths in one week occurred in the week ending Dec. 16th, when 52 took place, making a death rate of 27.8. The smallest number occurred in the week ending Oct. 21st, when 19 took place, making a death rate equal to 10.1.

INFANTILE MORTALITY.

Four hundred and eighty-five children under one year of age died in 1893, making an infantile mortality rate of 155.2 per 1,000 births registered. This rate was much less than that of the previous year, which was 171.4, but it was still much above the average rate of the ten years, 1881 to 1890, which was 143.2. The average rate for the 33 large towns in 1893 was 181.

Of the 485 deaths, 305, or 62.8 per cent., were certified as due to the four following causes, viz.:—100 to "other constitutional" diseases, 88 to convulsions, 54 to premature birth, and 63 to diarrhoea.

The percentage of infantile deaths to total deaths was 27.3, and was 1.2 above the average for the ten years, 1881 to 1890, but 2.2 less than the percentage for 1892.

The number of deaths of children under five years of age was 720, and was 40.6 per cent. of total deaths, which is about the average for ten years.

ZYMOTIC DISEASES.

To the seven principal Zymotic Diseases were attributed 190 deaths, viz. :—

Small Pox	7	Diphtheria	6
Measles	15	Enteric Fever	21
Scarlet Fever	14	Diarrhoea	83
Whooping Cough ...	44		

The Zymotic death rate was 1.9, which was the average rate for ten years. The average rate for the 33 large towns was 3.2.

PREVENTABLE DISEASES.

SMALL POX.

Fifty-two persons were admitted into the Small Pox Wards of the Borough Hospital during 1893, as follows, viz. :—

In January	...	...	7	In July	...	...	3
„ February	...	...	4	„ September	...	...	2
„ March	...	...	16	„ October	...	...	2
„ April	...	...	5	„ November	...	...	2
„ May	...	...	8	„ December	...	...	2
„ June	...	...	1				

Of the 52 persons admitted, five were cases of a doubtful nature, and ultimately turned out not to be cases of Small Pox. These five persons were all vaccinated, though in different degrees; two of them had four good marks of vaccination, two had three fair marks, and one had two very good marks. Not one of them contracted the disease. A sixth person, viz., a lad, aged five years, was admitted for purposes of isolation, as he had been in contact with three other members of his family who were suffering from Small Pox. Having two small marks of vaccination only, he was revaccinated on admission, but the result was not successful; he did not take the disease, however. So that there were really only 46 cases of Small Pox in the Hospital during 1893, and these, with the 11 cases received from November 26th to December 31st, 1892 (57 patients in all), constituted the whole of the epidemic. Taking therefore into consideration the number of times that the disease was freshly imported (14), and the number of centres of infection (23) that had to be dealt with, the Sanitary Authority may be fairly congratulated on the small number of cases that occurred.

The disease was introduced into Derby in 1893 no less than 14 times, and by tramps in 10 out of the 14. Three of these tramps were sent from Shardlow Workhouse, five from the Derby Workhouse, one from a lodging-house, and one from a public-house in Walker Lane. One case, a militia man, who hailed from Chesterfield and who was up for training, was sent to the Hospital from Normanton

Barracks; a second case was admitted from Melbourne, a man who had been working at Ecclesfield, and sleeping with a man who had Small Pox; and a third one, who was an itinerant actor.

From the following Table it will be seen that the largest number of Small Pox patients was admitted during the month of March, which fact may be accounted for in the following manner.

On March 10th, a man was admitted into the Hospital from Little Noel Street, who had been engaged in removing furniture from a house in Newtown, just outside the Borough, to Willington, when he was helped by two lodgers, who were afterwards found to be suffering from Small Pox. These two lodgers had been working for a contractor at various places away from Derby, and had in so doing caught the disease. Seven other cases were directly traced to this man from Little Noel Street, and it is most probable that besides these seven, most of the remaining cases occurring between March 10th and April 4th, resulted from the same centre.

Table of Small Pox cases admitted into the Borough Hospital in 1893, giving the dates of admission, the sex, ages, residences, relation to each other, with remarks pertaining to them.

No.	Admitted to Hospital.	Males.	Females.	Ages.	Residence.	Relation of Cases.	REMARKS.
1	Jan. 1	...	I	67	Crompton Street ...	To previous cases in 1892.	
2	" 14	...	I	31	Curzon Street ...	Ditto	
3	" 15	I	...	38	Workhouse ...	Tramp.	
4	" 16	I	...	31	Lodging House ...	Ditto	
5	" 19	I	...	63	Shardlow Union ...	Ditto	
6	" 23	I	...	52	Ditto. ...	Ditto	
7	Feb. 1	I	...	43	Workhouse. ...	Ditto	
8	" 3	I	...	54	Shardlow Union ...	Inmate who attended on cases 5 and 6.	
9	" 10	I	...	40	Workhouse ...	Tramp.	
10	" 11	I	...	32	Walker Lane ...	Ditto	
11	Mar. 10	I	...	30	Little Noel Street	Connected with two lodgers at Newtown.	
12	" 11	I	...	26	Workhouse ...	Tramp.	
13	" 11	I	...	44	Bridge Gate ...	Connected with 26.	Husband of No. 26.
14	" 13	I	...	23	Siddals Road ...	...
15	" 13	I	...	33	Canal Street ...	...
16	" 15	I	...	55	Markeaton Street ...	Connected with No. 11.	
17	" 18	I	...	41	Canal Street ...	Ditto 25.	Husband of No. 28.
18	" 20	I	...	49	Shardlow Union ...	Tramp.	
19	" 22	I	...	19	Goodwin Street ...	Connected with 27 & 28.	
20	" 23	...	I	29	Parcel Terrace ...	Ditto No. 11 & 16.	
21	" 23	...	I	6w's	Ditto ...	Ditto 11, 16 & 20.	
22	" 24	I	...	3	Ditto ...	Ditto 11, 16, 20 & 21.	
23	" 25	...	I	51	Noel Street ...	Ditto 11, 16, 20, 21 & 22.	
24	" 28	I	...	33	Markeaton Street ...	Do. 11, 16, 20, 21, 22 & 23	
25	April 1	I	...	30	Darley ...	Connected with No. 17.	
26	" 1	...	I	53	Bridge Gate ...	Ditto No. 13.	
27	" 4	I	...	3m's	Goodwin Street ...	Ditto No. 19.	{ Mother and Child.
28	" 4	...	I	33	Ditto ...	Ditto Nos. 19 & 27.	
29	" 18	I	...	32	Melbourne ...	Introduced from Ecclesfield.	
30	May 1	...	I	23	Noel Street ...	Connected with Nos. 11, 16, 20, 21, 22, 23 & 24.	
31	" 11	...	I	9m's	Grove Place ...	{ Mother and Child.	
32	" 11	...	I	28	Ditto ...		
33	" 11	...	I	29	Bates' Lodging Ho.	...	
34	" 20	I	...	18	Barracks ...	Introduced from Chesterfield	
35	" 20	I	...	47	Workhouse ...	Tramp.	
36	July 31	...	I	26	Copeland Street ...	{ One family.	The husband had been working in Leeds for about six weeks previous to July 8th, when he came home, felt poorly on the 12th, and had a rash (stated to be Chicken Pox) on 15th. Was in the house for about a week, but went out more or less every day during that time.
37	" 31	I	...	27	Ditto ...		
38	" 31	...	I	10m	Ditto ...		
39	Sept. 17	I	...	14	Station Street ...	...
40	" 30	I	...	40	Shaftesbury Street ...	{ One family.	
41	Oct. 11	I	...	15	Ditto ...		
42	" 29	I	...	16	Newland Street ...	...	Travelling Actor.
43	Nov. 10	I	...	23	Ockbrook ...	Connected with cases 45 & 46	
44	" 16	...	I	7	Union Street ...	...
45	Dec. 2	...	I	9	Rose Hill Street ...	{ One family.	
46	" 6	I	...	12	Ditto ...	Connected with 43.	

This Table shews that of the 46 cases of Small Pox located in the Borough Hospital, 31 were males and 15 were females; that the youngest patient was only six weeks old, while the oldest was 67 years;

The following were the age-periods at which the several patients were attacked, viz. :—

—1	1—5	5—10	10—20	20—40	40—60	60 & over.
4	1	2	6	19	12	2

Twenty-three houses were affected in addition to the Workhouse, the Barracks, and the houses from which the cases came from outside the Borough. Four houses had duplicate cases, three had three cases in each, and the remaining sixteen had single ones only.

The first two cases that were admitted in 1893 were connected with the previous ones in 1892. After these there was a series of seven tramps interspersed with a pauper who had nursed one or two of them in the Shardlow Workhouse. Then came the man from Little Noel Street, who, with the two unsuspected lodger cases at Newtown, infected probably some 15 or 16 other persons. Then two further tramps were received. From April 4th to May 1st there was a cessation of cases with the exception of the man from Melbourne, who was admitted on April 18th.

From May 1st to December 6th seventeen other cases of Small Pox occurred at scattered intervals, nine of which were removed to Hospital from four houses; amongst the remaining eight cases one was a tramp, one a lodging-house keeper, one was from Chesterfield, one from Ockbrook, and one was an itinerant actor, who had just come into the Borough from Bristol and Birmingham.

It will be convenient now to consider the question of the influence of vaccination and non-vaccination on the above cases, and for this purpose it will be best first of all to set the matter out in tabular form as follows :—

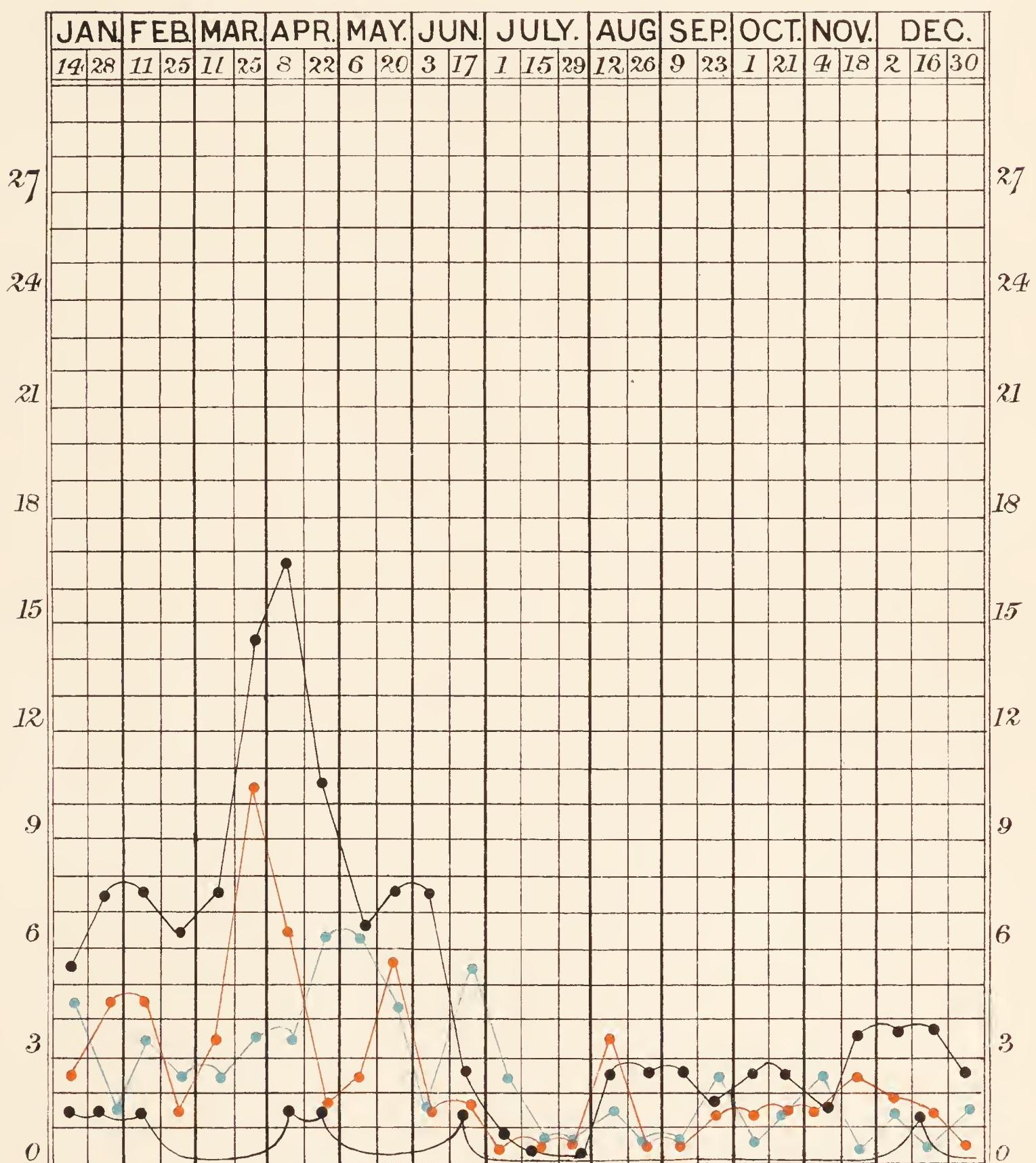
Table of Small Pox Cases, state of Vaccination, &c.

Cases	Marks of Vaccination.					Nature of Attack.	Length of Time in Hospital.	Result.	REMARKS.
	o	1	2	3	4				
1	X	...	...	...	...	Severe	12 Day	Died	
2	...	...	Small	...	...	Mild	28 ,,	Cured	
3	...	Good	...	...	...	"	29 ,,	"	
4	...	...	Fair	...	...	"	19 ,,	"	
5	X	...	...	...	...	Severe	4 ,,	Died	
6	...	...	...	Good	...	Mild	50 ,,	Cured	
7	...	...	Good	...	...	Severe	7 ,,	Died	
8	...	...	...	...	Good	Mild	35 ,,	Cured	This man was vaccinated in Shardlow Workhouse, as he, being a pauper inmate, was nursing Small Pox cases.
9	...	Good	...	...	...	"	43 ,,	"	
10	X	...	...	...	...	Severe	43 ,,	"	
11	...	...	Fair	...	...	"	57 ,,	"	
12	X	...	...	...	...	Mild	33 ,,	"	
13	...	...	Fair	...	...	"	18 ,,	"	
14	...	...	...	...	Good	"	31 ,,	"	
15	...	Small	...	...	...	Moderate	46 ,,	"	
16	...	...	Small	...	...	Mild	14 ,,	"	
17	...	Good	...	...	...	Moderate	42 ,,	"	
18	...	...	Fair	...	...	"	45 ,,	"	
19	...	...	...	Good	...	Mild	29 ,,	"	
20	...	...	Fair	...	...	"	29 ,,	"	
21	X	...	...	...	...	Severe	6 ,,	Died	An infant 7 weeks old.
22	X	...	...	...	...	Mild	36 ,,	Cured	A child aged 3 years who was vaccinated during 1st stage of Small Pox—only one place took.
23	...	...	Fair	...	...	Moderate	56 ,,	"	
24	...	...	Good	...	...	Mild	37 ,,	"	
25	...	Good	...	...	...	Severe	9 ,,	Died	
26*	...	...	...	...	...	Mild	12 ,,	Cured	Vaccinated successfully in 4 places after commencement of Small Pox.
27	X	...	...	...	...	"	44 ,,	"	An infant 3 months old.
28	...	...	...	...	Good	"	44 ,,	"	
29	X	...	...	...	...	Severe	48 ,,	"	
30	...	...	...	...	Good	Moderate	42 ,,	"	
31	X	...	...	...	...	Severe	30 ,,	Died	Vaccinated successfully in 3 places after Small Pox had seized the patient—an infant 9 months old.
32	..	...	...	Good	...	Mild	56 ,,	"	
33	...	...	...	Good	...	"	29 ,,	"	
34	...	...	...	Fair	...	"	21 ,,	"	
35	...	...	Good	...	...	"	21 ,,	Cured	
36	X	...	...	...	...	"	46 ,,	"	
37	...	...	...	Good	..	"	8 ,,	"	This case was so mild that it remained at home unrecognised for 18 days, until in fact two other persons in the same house became affected.
38	X	...	...	...	...	"	46 ,,	"	Vaccinated day after admission, and the vaccination was successful, the spots running concurrently with, and in the same stage as the Small Pox rash.
39	...	...	...	Fair	...	"	26 ,,	"	
40	...	...	...	...	Small	Moderate	35 ,,	"	
41	...	...	...	Good	...	Mild	23 ,,	"	
42	X	...	...	...	...	Severe	50 ,,	"	
43	...	...	...	Good	...	Mild	21 ,,	"	
44	...	...	Good	...	...	"	60 ,,	"	Detained in Hospital so long on account of Scarlet Fever attack as well.
45	X	...	...	...	...	Severe	6 ,,	Died	
46	X	...	...	...	...	Mild	30 ,,	Cured	

14 | 5 | 11 | 8 | 7

* This case stands by itself and is not included in the figures on the following page.

CHART SHEWING NUMBER OF SMALL POX PATIENTS, NUMBER OF ADMISSIONS, DISCHARGES AND DEATHS, IN THE BOROUGH HOSPITAL, IN EACH FORTNIGHT DURING THE YEAR 1893.



*Top Black line shews number in Hospital
Red " admitted
Blue " discharged
Bottom Black line " of deaths*

The Table shews that of the 46 cases of Small Pox, 14 were admitted to Hospital shewing no marks of vaccination; five shewing only one mark each, 11 two marks each, eight three marks, and seven four marks each. On further analysis of the vaccination marks it will be seen that of the five persons shewing one mark each, four had good marks; of the 11 shewing two marks each, four had good ones; of the eight having three marks, six had good ones, and of the seven with four marks, five had good ones. So that only 11 of the persons who suffered from Small Pox were properly vaccinated.

No patient was admitted who had ever been revaccinated.

The whole of the staff connected with the Hospital having been revaccinated, not one of them was attacked with the disease.

Of the 14 cases shewing no marks of vaccination five died, or 35.7 per cent. Of the remaining 32 cases which were vaccinated, only two died, or 6.2 per cent., and these two were vaccinated imperfectly, viz., one in one place only, and one in two places.

The following Table shews at a glance the above statement:—

						Cases.	Deaths.
Unvaccinated	...	...	...	...	...	14	5
Vaccinated in 4 places	...	...	...	...	...	7	0
Ditto 3 „	...	...	...	...	...	8	0
Ditto 2 „	...	...	...	...	...	11	1
Ditto 1 „	...	...	...	...	...	5	1
Ditto 4 „	after invasion of Small Pox					1	0

The means adopted to stamp out Small Pox in the Borough were, first and foremost, the removal of every case to the Borough Hospital; secondly, to get vaccination and revaccination performed wherever necessary and whenever consent could be obtained to the operation; thirdly, a constant and careful watching, for about three weeks, of all persons who had been in contact with the disease; and, lastly, thorough disinfection of all houses from which cases had been removed, together with all the clothing and other articles which had in any way been exposed to infective material.

SCARLET FEVER.

Five hundred and one cases of Scarlet Fever were recorded, viz. :—

In the 1st quarter	94	501
„ 2nd „	...	...	99
„ 3rd „	...	...	194
„ 4th „	...	...	114

Of the 501 cases, 195 were sent to hospital, viz.: 137 to the Royal Infirmary and 58 to the Borough Hospital. Thus only 38.8 per cent. of cases were removed from their houses, as against 62.3 per cent. in 1891 and 1892. The cause of this decrease in 1893 was the fact of the Borough Hospital being occupied for the greater part of the year with Small Pox cases, and consequently becoming unsafe for the reception of cases of another disease at the same time, unless such cases were sufficiently protected by vaccination. It was therefore made a condition, that patients, who sought admission to the hospital, should either have good vaccination marks, or consent to be vaccinated. This condition limited the number of patients considerably, but by it your Medical Officer was enabled to begin to receive Scarlet Fever patients in April, and to continue to receive them during the other months as follows:—

In April ... 3 cases.	In September 19 cases.
„ June ... 2 „	„ October ... 12 „
„ July ... 5 „	„ November 7 „
„ August ... 6 „	„ December 4 „

The vaccination-safeguard was successful, in that no Scarlet Fever case took Small Pox; Derby thus averting a danger which, in several other large towns, unhappily characterised the hospital administration.

Two unvaccinated cases were admitted, who were afterwards vaccinated; and five cases, whose vaccination marks were considered inefficient, were revaccinated.

Fourteen deaths took place from Scarlet Fever in the Borough in 1893, viz. :—

2 in the 1st Quarter.	|	6 in the 3rd Quarter.
4 „ 2nd „	|	2 „ 4th „

No death took place amongst the 58 cases treated at the Borough Hospital; two only took place amongst the 137 cases in the Royal Infirmary, while 12 occurred amongst those that were treated at home.

The proportion of deaths to cases (case mortality) was 2.8 per cent. The proportion of deaths to those cases that remained at home was four per cent, while of those that were removed to Hospital it was only one per cent.

Of the 137 cases treated in the Royal Infirmary, nine were those of strangers, which came from the following places outside Derby, viz :—

Belper 1	Egginton 1
Mickleover 1	Matlock 2
Pentrich 1	Alfreton 1
Brailsford... 1	Langley 1

In addition to these nine strangers, three nurses and two ward maids at the Infirmary contracted the disease. One patient also, who was admitted for another disease, caught Scarlet Fever.

The following are the business houses in which Scarlet Fever cases occurred :—

Dressmakers 3	Greengrocer 4
Grocers 7	Tobacconist 1
Toffee, Tobacco, &c. ... 2	Fish 3
Milk shop 3	Haberdashery 1
School (Private) 1	Clothier 1
Hosiery 1	Plumber 1
Chip Potato Seller ... 1	Second-hand shop ... 1
Chemist 1	Common Lodging-houses 2
Draper 1	Butcher 1
Muffin shop 1	

Thus 36 of such houses had in them Scarlet Fever cases. From 19 of these the cases were removed to Hospital; in the remainder, either such arrangements were made as would satisfactorily control the spread of the disease and at the same time to allow the business to be carried on, or the shops were closed and compensation was given by the Sanitary Authority. The amount of compensation paid to eleven persons in this way amounted to £33 18s. 5d. Compensation was given only in those cases where the guardians of the patients were willing to have the cases removed to Hospital, and where accommodation could not be found for them.

The Scarlet Fever cases were divided into 223 males and 278 females; 124 females thus being affected to every 100 males.

The age periods were as follows:—

Under 1 year of age.	1 and under 5.	5 and under 10.	10 and under 20.	20 and under 40.
7	136	220	118	20

As will be observed, the greatest number of cases occurred, as usual, in children between the ages of five and ten years.

The total number of cases was in excess of that of 1892 by 31. In 1891 there were 318 cases, and in 1892, 470, so that during the last three years there has been a progressive increase. In 1893 the increase may fairly be attributed to the number of cases that had to remain at home to be treated, on account of want of accommodation for them at the Borough Hospital, owing to its occupation by Small Pox patients.

The number of houses in which Scarlet Fever cases occurred was 389. Of these 328 had single cases in them, 39 had two cases, 19 had three, two had four and one had five cases.

Eight cases of Scarlet Fever were notified to the Sanitary Authority as having occurred in the Railway Servants' Orphanage.

RELATION OF SCHOOLS TO SCARLET FEVER CASES IN 1893.

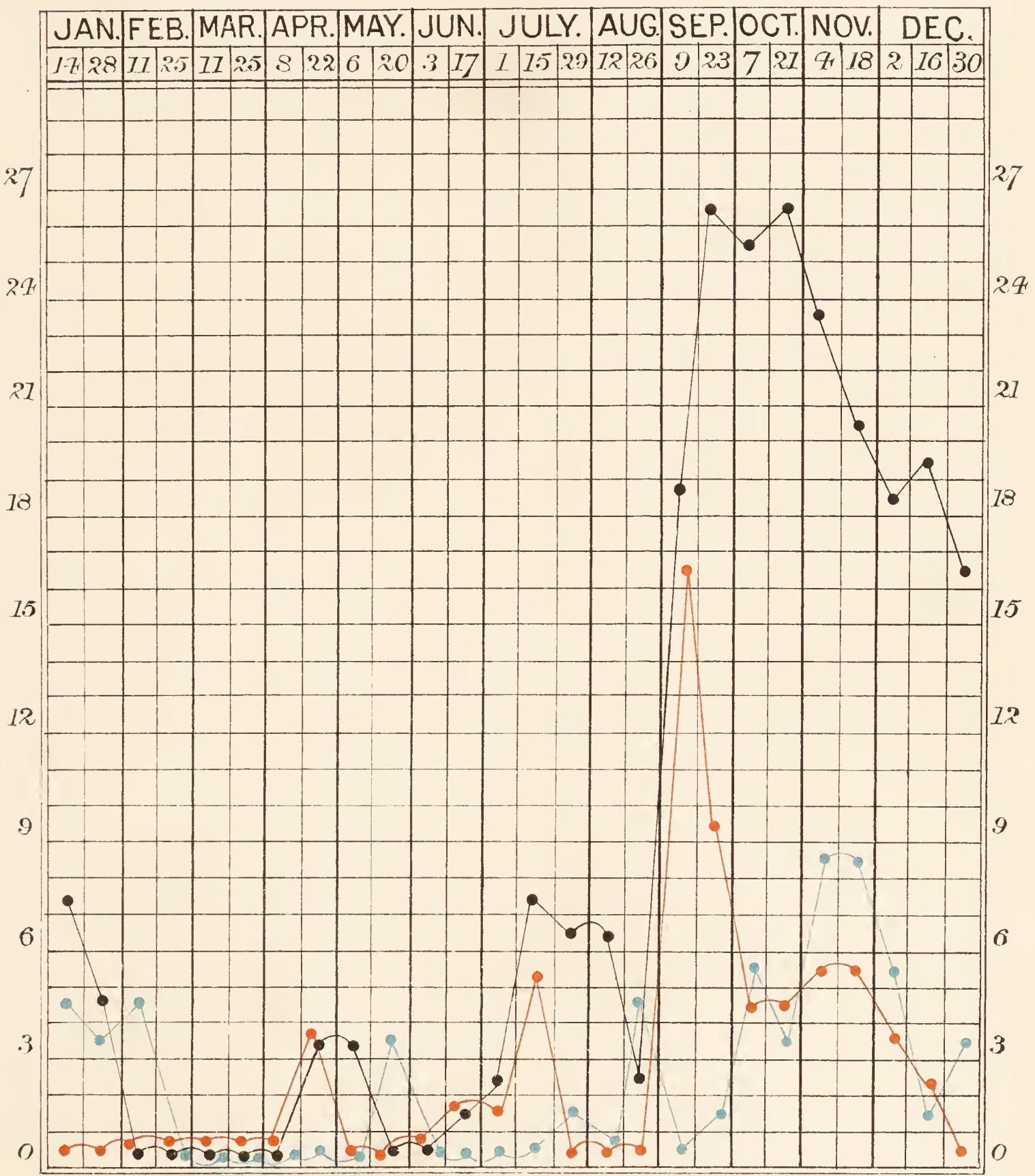
Of the 501 cases of Scarlet Fever occurring in 1893, 272 or 54 per cent. were those of children attending various Schools in the Borough. The 272 cases were distributed, in numbers varying from one to 33, amongst 49 Schools, public and private.

The following Table speaks for itself. It gives the names of Schools, amongst the scholars of which Scarlet Fever cases occurred, the number of these cases in each quarter of the year with the totals for the year, and the percentages of cases to pupils in each School. It is a useful Table, and one which is likely to afford, in time, much information tending to prevent the spread of the disease.

From the Table St. Thomas' School appears to have had the largest percentage, viz, 4.2, while next to it comes St. Chad's with 3.8.

The Schools marked with a query are those of which your Medical Officer has no knowledge as to the number of scholars, and therefore is unable to give the percentage of cases to pupils.

CHART SHEWING NUMBER OF SCARLET FEVER PATIENTS, ALSO NUMBER OF ADMISSIONS, DISCHARGES, AND DEATHS IN THE BOROUGH HOSPITAL, IN EACH FORTNIGHT DURING THE YEAR 1893.



Black line shews number in Hospital
Red " " " " admitted
Blue " " " " discharged

Relation of Schools to Scarlet Fever cases in 1893.

NAME OF SCHOOL.	Number of Cases.				TOTALS.	Per Centage of cases to Pupils at the several Schools.
	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.		
Ashbourne Road Board School	3	3	4	6	16	1.0
All Saints'	...	...	2	...	2	.5
British	...	...	...	1	1	(?)
Canal Street	1	4	6	...	11	1.4
Christ Church	...	3	8	...	11	1.9
Curzon Street	...	1	1	...	2	.4
Faire Street	6	7	8	1	22	1.4
Green Street	2	...	6	...	8	.9
Gerard Street	5	5	6	2	18	1.0
King Street	...	...	...	2	2	.7
Orchard Street	...	...	1	...	1	.2
Pear Tree	...	...	...	1	1	(?)
Parliament Street	...	...	...	1	1	.4
Siddals Road	...	1	...	...	1	.2
St. Anne's	1	1	1	4	7	1.0
St. Alkmund's	2	2	2	1	7	1.9
St. Andrew's	1	4	6	2	13	1.5
St. Chad's	5	3	16	2	26	3.8
St. Dunstan's	...	1	...	...	1	.1
St. James' Road Board Schools	5	4	12	12	33	1.6
St. James', Rose Hill Street	1	...	3	...	4	.8*
St. James', Malcolm Street	...	...	2	2	4	
St. John's	2	1	2	1	6	1.9
St. Luke's	3	4	3	1	11	1.6
St. Michael's	...	...	1	...	1	.8
St. Mary's	...	...	2	1	3	(?)
St. Paul's	1	3	6	1	11	2.6
St. Thomas'	1	1	3	1	6	4.2
Training College	2	1	...	2	5	(?)
Trinity	2	2	5	1	10	1.6
Traffic Street	...	...	2	5	7	.6
Private Schools (16)	7	5	6	2	20	(?)
TOTALS	50	56	114	52	272	

* St. James' consists of two Schools, viz, the Rose Hill School, which had four cases of Scarlet Fever amongst the Pupils, and the Malcolm Street School which had four.

DIPHTHERIA.

Fifty cases of Diphtheria were notified, or 17 less than in 1892. Of the 50 cases six died, or 10.8 per cent.

One case was admitted to the Royal Infirmary from Spondon, two cases were reported as occurring in the Railway Servants' Orphanage, and one in Her Majesty's Prison. Two cases only were removed from their homes to the Royal Infirmary.

Cases of the disease occurred in 41 houses in the Borough, and in 36 of these, single cases only were reported, while in five there were two cases in each.

The age-periods of the patients were as follows :—

YEARS.				
1—5	5—10	10—20	20—40	40 & over.
9	14	13	11	3

The incidence of the disease has, according to the above Table, followed the usual precedent, although children under 10 years of age appear to have suffered to a much less extent than in previous years. For the six years, from 1887 to 1892, 64.2 per cent. of the cases occurred in the first 10 years of life, whereas in 1893 only 46 per cent. so occurred.

Of the 50 cases, 14 were males and 36 were females.

In eleven Schools 19 pupils were affected ; in two of the schools there were four cases of the disease ; in one, three ; and in eight there were single cases only.

In 23 of the houses in which there were cases of Diphtheria, no nuisance of any kind could be detected. In 18 others such nuisances as follows were found, viz. :—to nine there were privies attached ; to six, tub-closets ; one had no through ventilation, one had a privy and an untrapped drain in the cellar, and one had a hand-flushed closet.

Your Medical Officer has lately had occasion to take a retrospective view of the behaviour of Diphtheria in Derby, and he has found that the disease is not a prevalent one in the Borough ; as in the 12 years, 1881 to 1892, no more than 342 cases had been notified to the Sanitary Authority. When, however, the last six years of that period are com-

pared with the first six, as regards the number of cases notified, it is seen that a much greater amount of the disease has occurred in the last six, viz., 310 cases, than in the first six, viz., 32. This large increase of late years of Diphtheria has not been peculiar to Derby, but has taken place in most, if not in all, of the large towns. Why this has been so is not apparent, and the fact is disappointing to sanitarians; for while the death rates from all causes and from the general Zymotic diseases have undergone a continuous and steady diminution, the rate from Diphtheria has been on the increase.

In the six years, 1881 to 1886, there were only nine deaths registered as due to Diphtheria in Derby, while in the following six there were 90. In the first period the deaths from it were 1.7 per 100,000 of the population, and in the last one they were 16.2, and this in spite of undoubted improvements in the sanitary conditions of the Borough. As much is known about Diphtheria as to the disease itself, its nature, its appearances, its symptoms, and its sequelæ, as about other infectious diseases, but its causation and prevention are still darkly clouded.

Diphtheria has its seasons, the second quarters of the nine years, 1884 to 1892, showing the smallest number of cases, then rising somewhat in the third quarters, but gaining the highest point in the fourth, and then subsiding gradually in the first quarters, thus:—

THE SEVERAL QUARTERS OF THE NINE YEARS, 1884 TO 1892.

2nd Quarters.	3rd Quarters.	4th Quarters.	1st Quarters.
56	68	123	78

School influence has been slight, if any, on the spread of Diphtheria in Derby.

TYPHOID FEVER.

There were 111 cases of Typhoid (Enteric) Fever, which were divided as follows:—

In the 1st Quarter	13	111
„ 2nd „	...	...	11
„ 3rd „	...	...	36
„ 4th „	...	...	51

Of the 111 cases 71 were those of males and 40 those of females, and they occurred at the following age-periods, viz. :—

YEARS.

1—5	5—10	10—20	20—40	40—60
4	12	40	46	9

Eight cases were received at the Infirmary from districts outside the Borough, viz. :—

From Osmaston	... 1	From Newtown	... 5
,, Melbourne	... 1	,, Allestree	... 1

From this Table, Newtown would appear to be rather an unenviable place to live in, and it is a district adjoining the Borough.

There were cases of Typhoid Fever in 90 houses, in 79 of which there were single cases, in eight there were two, in two there were three, and in one there were four cases. These figures are confirmatory of previous experience of Typhoid infectivity in Derby, which has shown that infectivity to be very slight.

The nuisances in connection with the Typhoid cases, which were discovered in 45 of the 90 houses were 27 privies, one or two of which had to be emptied through houses, six tub-closets, and two hand-flushed closets, also cellars with drains in them liable to flooding, drains under houses, unventilated soil pipes, and defective drains in kitchens, sculleries, &c.

Twenty-one persons died from Typhoid Fever, or 18.9 per cent. of the cases.

The disease was twice as prevalent in 1893 as in 1892, and the case-mortality was higher.

CHOLERA.

Everyone has been on the alert for the last two years, with regard to possible and probable outbreaks of Cholera in various parts of the country, and the Derby Sanitary Authority has, of course, been on the "qui vive" for any case or cases, that might be imported into the Borough. It was not, however, until September 14th, that there was any occasion for alarm in this neighbourhood; but on that date at

10 p.m., your Medical Officer was apprised, by a resident medical practitioner, of a case that was probably one of Asiatic Cholera. The symptoms of the disease, it was said, pointed in that direction, and had Cholera been in the district, this medical practitioner would have had no hesitation in describing the case as one of Asiatic Cholera. He saw the patient at 4 p.m., and at 7 o'clock the same evening the woman died. In a letter from the medical attendant, which I got the following morning at 8 a.m., it was stated that the patient "tried to get out of bed and died on the floor."

At 10.15 a.m. on September 15th, your Medical Officer visited the house, made all due enquiries, and fully and carefully inspected the premises and the surroundings. The house had been a public-house named the "Dun Cow," from which the license had been transferred; it was situated in Bold Lane, a narrow and somewhat crowded neighbourhood. It consisted of ten good-sized rooms, in fair condition and well ventilated, and the sanitary appointments inside the building were of a satisfactory kind. The patient and her husband had lived on the premises as caretakers, and they were the only inhabitants. The husband being interviewed, he said that his wife was 43 years of age, and was quite well up to 1.30 a.m. on Thursday, September 14th, when she began to have diarrhoea, but she was not so unwell as not to be able to go downstairs about 9 a.m. partly dressed. Afterwards vomiting supervened, which continued with the diarrhoea until she died at 7 p.m. on the same day. Her history showed her to have been addicted to alcoholism, and also she had been subject to epileptic fits, one of which she had had about a week previous to her death, while lying on the sofa. Her life had been a somewhat irregular one, and the house was the resort of organ-grinders, and people of that class. Neither she nor her husband had been out of Derby, and no information could be obtained of anyone going to the house that had been the subject of any illness whatever. There had not been any illness of a diarrhoeal character in any of the people living on either side of them, nor in any of the workpeople in the yard.

The house had in addition to a front entrance from the street, a side one up a wide passage, leading to a large open space at the back, the surface of which was for the most part unpaved, while the portion that was asphalted was in a broken and bad condition, several puddles of water being seen at time of visit. There was an ice-cream manufactory on one side of this open space, and an upholsterer's work-shop on another, and in the latter four workmen

were employed. In the passage, which is a covered one for some distance, was a locked up "w.c." for the use of the inmates of the "Dun Cow," the water-cistern of which was out of order. By the side of it was a tub-closet, set back in a recess, which was in fairly good condition ; the tub itself was about half full of watery evacuations, which were in part somewhat of a rice-water character. This tub was for the use of the workmen in the yard, but it was open to the public, and could be used by anyone going up the passage. Into this tub the evacuations from the patient had been thrown, and the stench from it was very great, being aggravated no doubt by its situation in the recess, without sufficient means of ventilation. The water supply for the premises was obtained from the Corporation waterworks, and was on the constant system.

On one side of the "Dun Cow" was a large fishmonger's shop, whose premises were quite distinct, and which had a separate drainage system. On the other side was a lodging-house, licensed for 30 lodgers, also quite distinct from the "Dun Cow," and kept in a most cleanly state.

A post mortem, by order of the Coroner, was made on the body, and some of the intestinal contents sent up to Dr. Klein for bacteriological and other examination. At the inquest a verdict was returned "Died from Asiatic Cholera." It was a very natural verdict, but it was one that did not quite coincide with the view of the case as taken by your Medical Officer. The verdict no doubt was based on the report received from Dr. Klein, the eminent Bacteriologist, viz. :—that after a microscopical, bacteriological and chemical investigation of the material from the body of the deceased, he had come to the conclusion that the case was one "indistinguishable from true Asiatic Cholera." This term "indistinguishable from Asiatic Cholera" appeared to your Medical Officer to be rather a negative than a positive one, and he therefore wrote to Dr. Thorne, the Chief Medical Officer of the Local Government Board, for a definition of it, and he got the following reply :—

"With reference to the phrase quoted in your letter of yesterday, I am to state that Dr. Klein's opinion means that, having regard to the pathological appearances of the intestine and its contents ; to the microscopic examination and the discovery of "comma" bacilli ; and to the tests to which the micro-organisms respond after making pure cultivations, the case in every respect *resembles* cases of Asiatic Cholera as met with by Dr. Klein in India. *Whether any such series of results*

are ever to be found in cases of English Cholera, so called, has not yet been made the subject of sufficient experiment."

The part of the letter in italics (the latter being your Medical Officer's) again appeared to make the matter somewhat obscure, and having regard to the history of the case, the external appearances of the body, the absence of any other cases of Cholera, either before or after, or of any traces of the poison that could have communicated it to the deceased, makes it necessary, that a more positive expression of opinion than that of "indistinguishable from Asiatic Cholera" must be forthcoming before your Medical Officer can accept the case as a true and certain instance of that disease.

It has been acknowledged that considerable difficulty exists in differentiating between cases of true Cholera of the Asiatic type, and rapidly fatal attacks of so called English Cholera, which in their clinical features so much resemble the Asiatic disease. In consequence of this difficulty, and the present uncertainty, the President of the Local Government Board announced in the House of Commons that he had directed an investigation into the relation, if any, between English Cholera and the Asiatic type of the disease. It may be taken therefore that the matter is still sub judice, and until it can be determined in a clearer manner than has already characterised the so called "Derby case," your Medical Officer must be excused if, for the present at least, he holds to his view that that case was not one of true Asiatic Cholera. Whatever his opinion, however, was on the matter, he did not let it stand in the way of immediate steps being taken to prevent any extension of the disease, supposing it to have been true Cholera. The evacuations were at once disinfected with strong solutions of carbolic acid, and afterwards taken to the "destructo" and burnt; all bedding, clothing, &c., that had been in contact with the deceased, were also burnt, the whole premises were thoroughly fumigated from top to bottom, and the drains and sewer in the street were efficiently flushed.

This, then, was the one case of Cholera.

Another case was reported in another part of the Borough on September 16th, and your Medical Officer, at the request of the patient's medical attendant, had an opportunity of visiting and examining it, and coming to the conclusion that there was no reason to fear that it was one of Asiatic Cholera:

Thus ended Derby's experience of Cholera in 1893, and it was not without its useful lessons.

MEASLES.

Measles was responsible for 15 deaths, and of these 13 took place in the first quarter of the year.

DIARRHŒA.

To Diarrhoea 83 deaths were attributed, a larger number, by 23, than occurred in 1892, and by 67 than in 1891. Of the 83 deaths 63 occurred in infants under one year of age, and 67 took place in the third quarter. Your Medical Officer has often commented upon the causes of Diarrhoea in Derby, and, although much of it can undoubtedly be traced to injudicious feeding and the quality of the food during the hottest months of the year; yet insanitary surroundings, such as filthy courts with their badly paved surfaces which in many instances it is impossible to thoroughly clean, and inefficiently flushed drains and sewers, exercise an immense power in bringing the disease into existence and continuing it. In wet summers Diarrhoea does not prevail to anything like the extent that it does in dry ones, thus proving that the natural mode of cleansing has its good effect, and pointing out the road that erring mortals ought to follow.

WHOOPING COUGH.

Forty-four deaths were certified as due to Whooping Cough, as against 58 in 1892. The number of deaths was, however, above the average for the 10 years, 1881 to 1890.

INFLUENZA.

Forty-two persons were certified as dying from Influenza, viz.:— 19 males and 23 females.

In the first quarter 6 deaths were certified.

„	second	„	10	„	„
„	third	„	2	„	„
„	fourth	„	24	„	„

The age-periods were as follows:—

Under one year of age.	1—5.	5—20.	20—40.	40—60.	60—80.	80 and upwards.
6	4	2	11	12	6	1

Your Medical Officer thinks it must be very difficult to diagnose the disease in children under five years of age, and still more difficult in those under one year.

There was an increase of 14 deaths from Influenza in 1893 as compared with the number in 1892.

NOTIFICATION OF INFECTIOUS DISEASES.

Six hundred and ten certificates were received from Medical Practitioners in regard to those diseases which are notifiable to the Sanitary Authority under "The Derby Improvement Act" of 1879. By these certificates 727 cases of infectious disease were brought to light. The cost of the certificates was £76 5s.

The following Table gives the usual summary of certificates and cases, and also information as to Inspectors' visits to infected houses, &c.

Summary of Medical Certificates and Infectious Cases for which Notification is Compulsory.

CERTIFICATES.						CASES.					
	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Total.		1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Total.
Cholera ...	...	...	2	...	2		...	2	4	...	2
Small Pox ...	19	7	2	5	33		26	15	194	7	52
Scarlet Fever ...	82	89	156	90	417		94	99	10	114	501
Diphtheria ...	8	13	9	15	45		9	14	36	17	50
Enteric Fever ...	11	10	32	49	102		13	11	2	51	111
Puerperal Fever... 	2	2	2	5	11		2	2	2	5	11
TOTALS ...	122	121	203	164	610.		144	141	248	194	727

Inspectors' Visits to Cases of Infectious Diseases, Removals to Hospital, Rooms Fumigated, &c.

	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	TOTAL.
Inspectors' visits to cases	3590
Cases isolated in Borough Hospital	...	796	727	1017	52
Ditto	...	26	15	7	58
Ditto	4	23	137
Ditto	...	5	30	37	2
Ditto	...	1	40	...	52
Ditto	...	1	19	24	1
Ditto	...	5	...	...	112
Cases willing to remove, but no room delayed for want of room	...	22	20	27	66
Ditto	...	12	7	18	266
Rooms Fumigated	203	185	268	922

There was one prosecution for non-compliance with the "Derby Improvement Act," the defendant allowing his child while suffering from Scarlet Fever to be exposed in the public street without taking proper precaution against the spread of the disease. It was a very flagrant case, and the defendant was fined ten shillings and costs by the Magistrates.

No difficulties arose with regard to Medical Men notifying, in fact it is very gratifying to your Medical Officer to be able to state that he continued to receive during 1893 the greatest help from his medical brethren in combating infectious diseases.

BOROUGH INFECTIOUS HOSPITAL.

The number of patients admitted to the Borough Infectious Hospital was 110, viz. :—

Scarlet Fever	...	...	...	...	58
Small Pox	...	...	...	...	52

There was no death from Scarlet Fever, but seven persons died from Small Pox as detailed elsewhere.

The average detention of Scarlet Fever patients in hospital was eight weeks each; of Small Pox patients, excluding those that died, $5\frac{1}{2}$ weeks each.

Two of the Scarlet Fever Cases were not deemed safe to be discharged, until they had been in the hospital thirteen weeks and six days; the longest period of detention, in the case of patients with Small Pox, was eleven weeks and two days.

The hospital has been maintained in good order, and the present staff is working satisfactorily. Chief Nurse Mould is a most efficient servant. Her devotion to her duties, and the manner in which she discharges them, are worthy of the fullest appreciation. The difficulties she had to contend with during the Small Pox epidemic were very great, but the way in which she grappled with them was beyond all praise. She is not only an excellent nurse, and wonderfully kind to those under her charge, but she is also a most able administrator, and is full of resource.

It is with regret that your Medical Officer has to report, that a change was necessary, during the year, in the officials of the administrative portion of the hospital. Mr. and Mrs. Wade, who, for many years, had done good work at the old as well as at the new hospital, found it

necessary to resign their appointments. In their places, the Sanitary Committee obtained the services of Mr. and Mrs. Banner, who are very steady, obliging and efficient servants, and who have up to the present time, given every satisfaction.

HOSPITAL EXTENSION.

The extension of the present hospital accommodation, by the further provision of 20 beds, which the Council resolved on in December, 1892, was proceeded with; but, owing to the strike in the building trade, the progress of the structure was much delayed. Seeing therefore it would not, as it was hoped, be possible to have the extra pavilion ready for occupation by December 31st,—the time when the Royal Infirmary Weekly Board had resolved to close their Institution to Scarlet Fever patients,—your Medical Officer advised that the Royal Infirmary Authorities should be approached, with a view to their extending the period for closing their wards to another six months. Eventually consent was obtained for the Infirmary beds to be utilized until March 25th, 1894, as, owing to various causes, it was impossible for a longer time than that to be granted.

On Tuesday, September 26th, a Local Government Board enquiry was held at Derby in reference to an application by the Derby Corporation to borrow £3,158 required for making the above extension. The enquiry was held by Rienzi Walton, Esq., M.I.C.E. and T. Bulstrode, Esq., M.D., and after it was concluded the Commissioners visited the hospital.

On December 1st, a letter was received from the Local Government Board, stating that, before deciding on the application for sanction to borrow the £3,158, they required certain conditions to be complied with, viz.: 1st, "That the Town Council will pass a resolution, undertaking to enclose the site of the hospital with a wall or close fence not less than 6 feet 6 inches high, and not to treat cases of Small Pox in the pavilion or annexe." 2nd, "The Board also request, that the Town Council will reconsider their proposals, for the sewage of the hospital." The Sanitary Committee think it impossible that these conditions can be accepted at the present time, and therefore it is feared, that the amount will have to be paid out of the current rates. This will be a hardship, but it will be borne much better than an outbreak of Small Pox with no place in which to isolate the cases as they arose. There is, no doubt, considerable danger in treating Small Pox cases on the same site as any other disease; but until the ratepayers are educated up to this fact, and

are willing to go to more expense in providing special hospitals for their treatment, there would be considerably more danger in having no hospital at all, than in receiving such cases, with certain precautionary measures, in separate pavilions on a site on which other infectious diseases are treated. In the former case, your Medical Officer has not the slightest hesitation in asserting, that the infection would spread to hundreds of persons, while in the latter the persons infected would be counted by units only—and the lesser danger is always the better one to accept. It is yet to be proved, whether the refusal of the sanction to a loan for an isolation hospital, or for an extension to the same, on the ground that Small Pox may be treated on the same site as Scarlet Fever, will have the salutary effect, which is probably expected of it, viz. : that of compelling every Sanitary Authority, or combination of Authorities to provide two infectious hospitals ; or whether it will not rather have a deterrent one, and end in no hospitals being erected at all. The coat must be cut according to the cloth, and the cloth in this instance is, as yet, limited.

SANITARY LEGISLATION.

It is a matter for some satisfaction that in 1893 there was little or no new sanitary legislation affecting the Borough of Derby. A rest is thus afforded, and a little breathing time obtained, which will enable one to read, digest, and put in force some of the many present Acts of Parliament for the preservation of the health of the people, which have not yet received the attention they deserve. In saying this, one may be permitted to revert to the "Public Health Acts Amendment Act, 1890." This Act is the result of consolidating two Bills, which were introduced into the House of Commons, the intention being to enable Local Authorities to supplement their powers under the "Public Health Acts" without the necessity of promoting Private Bills for the purpose, at considerable cost to the ratepayers. Part III. of the Act refers to sanitary matters, and contains many important provisions, which would, if adopted, be beneficial to the inhabitants of this Borough. So satisfied were the Sanitary Committee of the wisdom of obtaining the extra powers that they brought that part of the Act before the Council for adoption, but it was rejected. It was acknowledged that many of the clauses contained in the Act were very desirable, but the great objection centred around clauses 16 and 17, which render it unlawful to pass certain matters into drains and sewers. On the face of it, there may seem to be some ground for the objection, and it might be thought

that injury would accrue to manufacturers, and through them to a large number of workpeople, if the Act were adopted. In consequence of this fear, your Medical Officer addressed a circular to the Medical Officers of 32 large towns in England containing these two questions, viz. :—“Has your Corporation adopted Part III. of the Public Health Acts Amendment Act, 1890?” “If so, have you had any trouble with regard to sections 16 and 17 of the Acts, so far as manufacturers are concerned?”

Twenty-nine replies were received, and from them it appeared that twenty towns had adopted the Act, one had incorporated the same powers in a Local Act, and eight towns had not adopted it.

The following Table gives detailed information with regard to these towns :—

Queries addressed to Medical Officers of Health of 32 large towns of England, and their answers thereto in regard to Part III. of the "Public Health Amendment Act, 1890."

TOWNS.	Has your Corporation adopted Part III. of the "Public Health Amendment Act, 1890"?	If so, have you had any trouble with regard to Sections 16 and 17 of the Act, so far as Manufacturers are concerned?
Burnley ...	Yes.	No. The power has been exercised several times without difficulty.
Birmingham ...	Yes.	No.
Blackburn ...	Yes.	No.
Bradford ...	Yes.	Yes. We find it very difficult to find out who is the offending person turning injurious matters into the sewer; some one has to be caught in the very act before a case can be proved.
Brighton ...	Yes.	No.
Cardiff ...	Yes.	No.
Croydon ...	Yes.	No.
Halifax ...	Yes.	No.
Hull ...	Yes.	No.
Leicester ...	Yes.	No.
Liverpool ...	Yes.	No.
Manchester ...	Yes.	No.
Norwich ...	Yes.	No.
Newcastle-on-Tyne	Yes.	No. answer.
Portsmouth ...	Yes.	No.
Plymouth ...	Yes.	No.
Salford ...	Yes.	No.
West Ham ...	Yes.	No.
Wolverhampton ...	Yes.	No.
Bristol ...	Yes.	No.
Leeds ...	The Leeds Corporation placed all the clauses of Part III. "Public Health Amendment Act, 1890," in their consolidated Bill. The Committee of the House, however, refused to pass them as part of our Local Act. We have not yet adopted them.	
Birkenhead ...	No.	
Bolton ...	No.	
Gateshead ...	No.	
Huddersfield ...	No.	
Nottingham ...	No.	
Oldham ...	No.	
Preston ...	No.	
Sunderland ...	No.	

From the above Table the only inference that can be drawn is, that the fears of the Derby Town Council were much exaggerated with regard to clauses 16 and 17, and that really neither difficulty nor hardship has been experienced by manufacturers in these towns which have adopted the Act. That being so, it is a pity to have the many good provisions that the Act contains thrown overboard, provisions which would enable the Sanitary Authority to deal with certain insanitary conditions that they are unable to effectually cope with now. For instance, provision is made by which the Local Authority may make communications with, or alter drains and sewers, where the owner or occupier of any premises is entitled to cause any sewer or drain from these premises to communicate with any sewer of the Local Authority, the costs of making the communication, &c., to be borne by such occupier or owner. The necessity for some such power as this provision would give, was shown by your Medical Officer to exist so long ago as 1879 in his report for the quarter ending September, where it is stated as regards New Normanton that "It was observed during the reconstruction of the drainage of the district, that only six house drains were effectively connected with the sewers, the remainder, viz.: 132 being found either broken or imperfectly united." And again in the Annual Report for 1880, after many other house drains were found in a similarly unsatisfactory state, your Medical Officer observes that "This malconstruction has, unfortunately, in every other instance where completion of streets has necessitated the overhauling of these private drains, been of the same kind, and affords very striking evidence that the time has arrived when the construction of these drains should be taken out of the hands of private builders of property, and placed in those of competent men under the direction of the Sanitary Authority."

Again, section 19, relating to two or more houses belonging to different owners and connected with a public sewer by a single private drain, where complaints as to nuisances have been made, power is given to the Local Authority to execute any necessary works to remedy the nuisance, and charge the several owners with the expenses incurred. This section would remove a great difficulty, which has often been experienced in cases of this nature.

The sections 20 and 21 also, which relate to sanitary conveniences, for public accommodation and those used in common, would be invaluable in preventing nuisances, which it is now impossible to deal with satisfactorily.

Section 28 extends the number of articles of food, which may be seized if diseased, &c., according to section 116 of the "Public Health Act, 1875," to all articles intended for the food of man.

The sections relating to the licensing of slaughter-houses, and the power given to revoke a license on conviction of an occupier, for sale of meat unfit for food, would give further powers to the Local Authority, and enable the latter to more effectually prevent unwholesome meat from being put into the market, and so to secure more means for abolishing an altogether loathsome trade.

Such are some of the undoubted benefits which the adoption of Part III. of the "Public Health Acts Amendment Act" would confer on the inhabitants of Derby, and its drawbacks being nil, it is a question for the consideration of the Sanitary Committee whether they would not think it the right thing to do, to again bring the matter before the Council, and, giving further explanations, endeavour to persuade that body to adopt the "Act" so far at least as relates to sanitation.

"DAIRIES, COW-SHEDS, AND MILK-SHOPS ORDER, 1885."

This Order still remains a dead-letter in this Borough. It is a pity that it is so, for there are many places to which it could be applied, so as to secure better conditions for the storage and sale of milk, a matter very important, at all events, to the younger members of the community.

S A N I T A R Y W O R K S .

HOUSING OF THE WORKING CLASSES ACT, 1890.

Section 20 of the "Housing of the Working Classes Act, 1890, says: "It shall be the duty of the Medical Officer of Health of every district to represent to the Local Authority of that district any dwelling house which appears to him to be in a state so dangerous or injurious to health as to be unfit for human habitation.

It will be remembered that in 1892 your Medical Officer condemned, under the above section, twelve houses as unfit for habitation, and alterations were so made in these as to rectify their unfitness in a manner satisfactory to your Medical Officer.

In 1893, fifty-two houses were, in like manner, condemned, and ten of these were demolished, but in two of the ten a Magistrates' order had to be obtained. Three houses were closed, and in the matter of thirty-nine others, steps are being taken to comply with the notices.

SLAUGHTER HOUSES.

For some years the Sanitary Committee has experienced great difficulty in dealing with the slaughter-house question. With the increase of the population of the Borough, the number of butchers for the supply of meat to the inhabitants has increased, and consequently the demand for the licensing of fresh premises for slaughter-houses has been a natural result. Licenses have had to be granted in most instances, though with great reluctance, as many of the places, for which licenses were asked, were in the midst of dense populations, and, so in very undesirable situations. In the absence however of public slaughter-houses, it would have been obviously unjust and unfair to these tradesmen, to have denied them the conveniences necessary for the purposes of their business. To some extent this difficulty will be obviated in the near future, as, upon representations made by the Sanitary Committee to the Markets Committee, on the advisability of providing public abattoirs, the latter body obtained the consent of the Council to an expenditure of £5,000 for the purpose of building fourteen additional slaughter-houses in the Cattle Market.

Mr. Wilkinson, the Chief Sanitary Inspector, gives a tabular statement of the work done in 1893 in his department. This statement shows that there has been a large increase in the amount of refuse disposed of from the Chester Depôt, and also in the amount delivered direct to farmers as collected. The increase over the previous year from the Depôt was 154 boat loads, and 750 tons in other ways, while in the direct delivery the increase was 1,247 tons. The difficulty of disposing of the refuse at one time was very great, but it appears now to be considerably less; so that either the material must have more manurical value than it had before, or else customers for it are more eagerly looked for and obtained. Whichever way it may be, it is extremely satisfactory to have less accumulation at the Depôt.

The conversion of privies into w.c.'s is a very important matter, which is proceeding gradually though slowly in the Borough, 176 such conversions taking place last year. As will be seen from Mr. Wilkinson's Report there are different modes for the disposal of excreta in vogue, and a census was taken by one of the Sanitary Inspectors (Dolman), during the year of the number of houses in Derby adopting the several modes, the details of which are given in Mr. Wilkinson's Report.

From these details it is shown that the persons living in 59 per cent. of the houses in Derby, have the misfortune to be obliged to live

with their own excreta in close proximity to them, for a length of time varying, from about a week in the matter of tubs, to some months in that of privies. What the condition of the atmosphere must be, in and about these odoriferous and pestiferous places, can be readily imagined, and it is strange therefore that, with so plentiful a water supply, as Derby possesses, to carry off at once the effete matters from premises, people should be content to dwell with so much nastiness about them; but, it is said that "beggars cannot be choosers," and doubtless necessity compels in many instances. It is the duty of the Sanitary Authority to help these "beggars"; for as Charles Dickens has so well put it, "Universal diffusion of common means of decency and health is as much the right of the poorest of the poor, as it is indispensable to the safety of the rich and of the State."

DISEASED CATTLE.

With a view to prevent as much as possible the sale of unwholesome or diseased meat the following notice was posted in the Cattle Market:—

BO R O U G H O F D E R B Y.

CATTLE MARKETS.

Notice is hereby given, that any person who shall bring or cause it to be brought any unwholesome or diseased animal into this market, will be prosecuted as the law directs.

By order of Markets Committee,

H. F. GADSBY,

Town Hall, Derby.

TOWN CLERK.

17th August, 1893.

This notice, if acted upon, must be of some service in safeguarding the meat supply of the Borough.

THE MORTUARY AND POST-MORTEM ROOMS.

These rooms have been reported as being damp, and the Borough Engineer has the matter in hand.

Thirteen bodies have been deposited in the mortuary, and seven post-mortems have taken place.

WELL WATER.

Three samples only of well water were submitted to your Medical Officer for testing, and of these two were pronounced bad.

One hundred and seventy-four houses are still supplied with well water; this number is ten less than in 1892.

Analysis of the water supplied by the Corporation has been made by the Borough Analyst, Mr. Otto Hehner. The following is his Report:—

(COPY.)

11, Billiter Square, London, E.C.,

June 30th, 1893.

Report on a sample of water received on June 24th, from Inspector W. Wilkinson, Derby.

Sample marked "Derby."

100,000 parts of the sample were found to contain:—

Chlorine	...	...	...	...	1.70
Sulphuric Acid	...	...	...	...	3.80
Nitric Acid	...	...	...	...	0.82
Free Ammonia	...	...	...	...	0.0013
Albuminoid Ammonia	...	...	...	...	0.0011
Oxygen absorbed in 15 minutes	...	...	...	...	0.0006
Ditto ditto	4 hours	...	...	...	0.0189
Total Solids	...	...	...	...	29.80
Loss on ignition	...	...	...	...	5.60
Phosphoric Acid	...	...	...	...	none.

The water was quite clear.

I conclude from the above analysis that as far as chemical examination is capable of deciding, this water is quite free from sewage and animal pollution. It is a remarkably pure water, almost devoid of organic matter. The amount of mineral substances is also very moderate, and altogether I have to come to the conclusion that the sample is one of remarkable purity, perfectly well suited for drinking and all domestic purposes.

(Signed) OTTO HEHNER,

PUBLIC ANALYST.

RAINFALL.

The following statistics of rainfall taken at Derby have been kindly furnished to your Medical Officer by Messrs. Davis, of All Saints' Works.

The total amount of rainfall in 1893 was only 21.13 inches as against an average rainfall for 21 years of 25.85.

Statistics of Rainfall taken at Derby.

	1893.	1892.	1891.	1890.	Average for 21 years.	No. of Raining days for 1893.
January ...	1.45	1.33	1.94	2.75	1.90	19
February ...	2.74	1.14	.11	.68	1.38	21
March ...	.38	.84	1.26	1.15	1.93	8
April ...	.74	.62	2.38	.75	1.88	5
May ...	2.19	2.48	2.22	1.69	1.85	11
June ...	.88	3.46	4.85	1.90	2.74	6
July ...	3.82	2.34	1.92	1.81	2.62	18
August ...	1.73	2.82	3.55	3.30	2.86	16
September	1.56	3.22	1.40	1.45	2.44	12
October ...	1.83	2.54	4.47	1.64	2.56	15
November	1.43	1.62	1.82	3.53	1.82	19
December	2.38	1.49	3.39	.71	1.87	23
Total ...	21.13	23.90	29.31	21.36	25.85	173

SEWERS, STREET FLUSHING, &c.

The Borough Engineer has, as usual, kindly supplied a summary with regard to cleansing of sewers, &c.

There was a large increase in the number of loads of sewage matter taken out of the sewers in 1893, as compared with the previous year, viz.: 350 loads as against 123. It appears that as many as 72 loads were taken out of the Friar Gate sewer, 48 from the London Road one, 35 from Fox Street, and 30 from Park Street sewer. Surely if these sewers were properly laid, there should not be such a large amount of putrifying matter lying in them, and causing dangerous emanations to be given off. No wonder at the complaints of the inhabitants at the stinks from the ventilators on the surface of the roads.

Sewer flushing was carried out to a larger extent in 1893 than for some time past; and it was very necessary, as owing to the very dry season and the threatening prospect of Asiatic Cholera visiting the country, together with the greater number of Typhoid Fever and Diarrhoea cases, it was essential to have as much cleanliness as could be procured. Your Medical Officer cannot insist too strongly now as in many former reports he has done, on the necessity, during the hot months of the year, of regular and systematic flushing of all sewers and drains.

W. I L I F F E,

MEDICAL OFFICER OF HEALTH.

April 27th, 1894.

SANITARY INSPECTOR'S REPORT FOR 1893.

FORD STREET STABLES.

Account of Horses to 31st December, 1893.

Bought 3. Disposed of 4.

Present number—Inspector's Department	-	-	-	33
„ „ Surveyor's ditto	-	-	-	20
„ „ Fire Brigade and Police	-	-	-	5

SLAUGHTER HOUSES.

Year ending 31st December, 1893.

Present number on Register	-	-	-	-	-	64
Ceased to be used as a Slaughter House	-	-	-	-	-	1
Slaughter House pulled down	-	-	-	-	-	1
Visits of Inspection during the year-	-	-	-	-	-	1,934

REFUSE DISPOSAL.

Year ending 31st December, 1893.

Refuse sold and delivered:—

From Chester Depôt, 699 boat loads, and 1,214 tons 13 cwts.

Delivered direct to farmers, as collected from privies and pits,
3,253 loads.

PRIVY AND ASH-PIT CLEANSING.

Year ending 31st December, 1893.

Night-work.—Privies cleansed	-	-	-	-	-	-	9,324
„ Ash-pits cleansed (ashes only)	-	-	-	-	-	-	5,078
„ Privy Cesspools cleansed	-	-	-	-	-	-	1,481
Day - work.—Dry Ash-pits cleansed	-	-	-	-	-	-	1,109
							<hr/>
	Total	-	-	-	-	-	16,992
							<hr/>

Night-work.—Loads of Soil (excreta only)	-	-	-	-	-	-	7,451
„ Loads of Ashes and Excreta	-	-	-	-	-	-	4,837
„ Loads of Ashes only	-	-	-	-	-	-	5,373
Day - work.—Loads of Ashes	-	-	-	-	-	-	13,717
							<hr/>
	Total	-	-	-	-	-	31,378
							<hr/>

FOOD AND DRUGS ACT.

Samples submitted to Analyst, with results.

Samples.	Article.	Genuine.	Adulterated.
12	Brandy	9	3
1	Butter	1	...
3	Coffee	3	...
11	Gin	7	4
3	Lard	3	...
8	Malt Vinegar	6	2
3	Margarine ... ... ...	...	3
20	Milk	16	4
12	Rum	9	3
4	Soda Water	3	1
12	Whiskey	9	3
89		66	23

CANAL BOATS' ACT.

Boats inspected 46.

Two contraventions were met with, viz., one case of overcrowding and one case of sexes not separated. Notices were served to remedy these, and they had the desired effect.

No new Registrations have been made during the year.

One Certificate was cancelled.

Number of boats now on the Register 61.

CONTAGIOUS DISEASES (ANIMALS) ACT.

No case of disease has occurred within the Borough during the year.

COMMON LODGING HOUSES.

These have been regularly inspected; one was pulled down; three new registrations were made.

WATER EXAMINATION.

Three samples of well water examined by the Medical Officer of Health; two bad, and one fair quality.

UNSOUND FOOD.

- 1,657 lbs. of Beef.
- 1,624 lbs. of Cod Fish.
- 1,344 lbs. of Mushrooms.
- 448 lbs. of Herrings.
- 308 lbs. of Shrimps.
- 224 lbs. of Mackerel.
- 168 lbs. of Plaice.
- 50 lbs. of Bloaters.
- 48 lbs. of Haddock.
- 40 lbs. of Mussels.
- 1 case of Tomatoes.

PRIVIES, &c., WITHIN THE BOROUGH.

Information has been collected during the year for a complete Register of all Privies, Ashpits, W.c.'s, &c. This was a heavy undertaking and occupied the greater part of the time of the Assistant Inspector appointed a year ago, so that no increase in the ordinary work in the Sanitary Department has been possible.

This inspection of the town resulted in the collection of the following particulars, viz. :—

- 19,969 dwelling houses.
- 7,520 Water closets (90 of which were hand flushed).
- 318 Trough or flush closets, of which 175 had automatic flushes by means of tipping or siphon arrangements, 47 were without water supply and dependent on hand flushing, and 96 had flushing arrangements other than automatic.
- 4,777 Tub Closets.
- 9,235 Ash Boxes.
- 1,263 Dry Ashpits.
- 7,275 Privies.
- 2,809 Ashpits (mixed contents).
- 1,129 Cesspools.

NUISANCES

NOTICES SERVED.

To Cleanse and Repair Privies	...	...	...	...	...	...	212
," "	Choked Drains	...	...	...	...	...	338
," "	Soft Water Cisterns	...	...	...	...	...	28
," "	Dirty Houses	...	...	...	...	...	244
," "	Bakehouses	...	...	...	...	...	0
," "	Slaughter Houses	...	...	...	...	...	2
," "	Passages or Yards	...	...	...	...	...	121
," "	Cellars	...	...	...	...	...	7
,"	Disconnect Sink Drains	...	...	...	...	...	19
,"	Lay in new Drains and replace Brick Drains	...	...	...	...	...	28
,"	Trap Drain Inlets	...	...	...	...	...	131
,"	Lay on Town Water	...	...	...	...	...	2
," "	to W.C.'s	...	...	...	...	...	2
,"	Provide extra W.C. Accommodation	...	...	...	...	...	7
,"	Convert Privies to W.C.'s	...	...	...	...	...	112
,"	Remove Urinals	...	...	...	...	...	1
," "	Accumulations of Manure	...	...	...	...	...	25
," "	Animals, Fowls, &c.	...	...	...	...	...	62
," "	Stale Swill	...	...	...	...	...	9
," "	Ash-pits	...	...	...	...	...	7
," "	Manure Pits	...	...	...	...	...	2
," "	Stagnant Water	...	...	...	...	...	1
," "	Soil Pipes from Houses	...	...	...	...	...	1
," "	Drains from ditto	...	...	...	...	...	25
,"	Ventilate W.C.'s and Soil Pipes	...	...	...	...	...	8
,"	Erect Urinals	...	...	...	...	...	2
,"	Lay in Damp Courses and repair Damp Houses	...	...	...	...	...	118
,"	Repair Defective Chimney Stack	...	...	...	...	...	1
," "	Spouting	...	...	...	...	...	319
," "	Roofs	...	...	...	...	...	125
," "	House Floors, &c.	...	...	...	...	...	62
," "	Paving of Yards and Passages	...	...	...	...	...	160
," "	W.C. and Urinal Fittings	...	...	...	...	...	95
," "	Ashes and Manure Pits	...	...	...	...	...	13
," "	Water Supply	...	...	...	...	...	10
," "	Dangerous Walls	...	...	...	...	...	2
," "	Cellar Coverings	...	...	...	...	...	0
," "	Covers of Wells	...	...	...	...	...	3
,"	Fill in disused Wells	...	...	...	...	...	1
,"	Ventilate Rooms of Houses	...	...	...	...	...	5
,"	Abate Smoke Nuisances	...	...	...	...	...	10
,"	Prevent overcrowding	...	...	...	...	...	25
,"	Relay Defective Pipe Drains	...	...	...	...	...	43
,"	Provide Ash Boxes	...	...	...	...	...	10
,"	Discontinue Boiling Offal	...	...	...	...	...	1
		Total	...	...	...	...	2399

DEALT WITH.

NUISANCES ABATED.

Privies Cleansed and Repaired	...	...	...	...	...	543
Choked Drains Cleansed	...	...	...	...	...	523
Foul Soft Water Cisterns Cleansed	...	...	...	...	...	45
Dirty Houses	"	...	...	...	...	305
" Bakehouses	"	...	...	...	...	2
" Slaughter Houses	"	...	...	...	...	3
" Passages or Yards	"	...	...	...	...	74
" Cellars	"	...	...	...	...	47
Sink Drains Disconnected	...	...	...	...	...	43
New Drains laid in and Brick Drains replaced	...	...	...	...	...	121
Drain inlets trapped	...	...	...	...	...	646
Town Water laid on	...	...	...	...	...	10
" " to W.C.'s	...	...	...	...	...	1
Extra W.C. Accommodation provided	...	...	...	...	...	2
Privies converted to W.C.'s	...	...	...	...	...	176
Urinals removed	...	...	...	...	...	1
Accumulations of Manure removed	...	...	...	...	...	32
Animals, Fowls, &c.	"	...	...	...	...	53
Stale Swill	"	...	...	...	...	11
Ash-pits	"	...	...	...	...	71
Manure Pits	"	...	...	...	...	3
Stagnant Water	"	...	...	...	...	0
Soil Pipes from Houses	"	...	...	...	...	4
Drains from Houses	"	...	...	...	...	47
W.C.'s and Soil Pipes ventilated	...	...	...	...	...	27
Urinals Erected	...	...	...	...	...	6
Damp Courses laid in and damp Houses repaired	...	...	...	...	...	246
Defective Chimney Stack repaired	...	...	...	...	...	0
" Spouting repaired	...	...	...	...	...	563
" Roofs	"	...	...	...	...	184
" House Floors, &c., repaired	...	...	...	...	...	53
" Paving of Yards and Passages repaired	...	...	...	...	...	277
" W.C., and Urinal Fittings repaired	...	...	...	...	...	137
" Ashes and Manure Pits repaired	...	...	...	...	...	8
" Water Supply repaired	...	...	...	...	...	12
Dangerous Walls repaired	...	...	...	...	...	0
" Cellar Coverings repaired	...	...	...	...	...	1
" Covers of Wells repaired	...	...	...	...	...	2
Disused Wells Filled in	...	...	...	...	...	0
Rooms of Houses Ventilated	...	...	...	...	...	8
Smoke Nuisances abated	...	...	...	...	...	12
Overcrowding prevented	...	...	...	...	...	22
Defective Pipe Drains relaid	...	...	...	...	...	126
Ash Boxes provided	...	...	...	..	...	20
Offal Boiling Discontinued	...	...	...	...	...	5
			Total	...	...	4472

MAGISTERIAL PROCEEDINGS.

No. of Cases.	Complaint.	Results.	Total costs. £ s. d.
1	Selling Adulterated Milk ...	Fined 2/6 and costs	1 3 6
2	„ „ Milk ...	„ 1/- „	1 0 0
3	„ „ Milk ...	„ 1/- „	1 2 6
4	„ „ Gin ...	„ 10/- „	0 17 6
5	„ „ Gin ...	„ 20/- „	1 7 6
6	„ „ Brandy ...	„ 20/- „	1 7 6
7	„ „ Brandy ...	„ 10/- „	1 8 0
8	„ „ Rum ...	„ 10/- „	1 9 0
9	„ „ Soda Water	„ 10/- „	1 10 6
10	„ „ Malt Vinegar	„ 20/- „	2 1 0
11	Exposing Bad Meat for Sale	„ £5 12s. „	7 1 0
12	Exposing Bad Fish for Sale	„ £2 10s. „	3 17 0
13	In possession of Diseased Meat	„ £20 „	21 14 6
14	Breach of Slaughter House Bye Laws	„ 5/- „	0 15 6
15	Exposing Scarlet Fever Patient	„ 10/- „	2 1 0

W. WILKINSON,

CHIEF SANITARY INSPECTOR.

MANHOLES CLEANED OUT DURING 1893.

	Loads.		Loads.
Litchurch ...	... 25	Over Borough	... 145
Noel Street	... 2		<u>—</u>
Nottingham Road...	... 3	Total	... 175 <u>—</u>

MANHOLES CONSTRUCTED DURING 1893.

Burton Road	... ... 5	Radbonrne Street	... ... 3
Bridge Gate to Full Street	2	St. Gile's Road	... ... 1
King Street ...	... ... 1	Violet Street	... ... 1
Middleton Street	... ... 5		<u>—</u>
Queen Street, Passage	... ... 1	Total	... 19 <u>—</u>

SEWERS CLEANED OUT DURING 1893.

	Loads.		Loads.
Bold Lane ...	... 14	Mansfield Road	... 2
City Road ...	... 9	Sherwood Street	... 4
Courts ...	... 2	Park Street	... 30
Fox Street ...	... 35	Wardwick ...	... 122
Friar Gate ...	... 72	Willow Row	... 4
Leman Street	... 2		<u>—</u>
London Road	... 48	Total	... 350 <u>—</u>
Meadow Lane	... 6		

SEWERS NEW LAID DURING 1893.

Burton Road	... ... 12"	King & Queen Street Lots,
Bridge Gate to Full Street	12"	Passage to rear of ... 9"
Hospital, Drain from	... 9"	Middleton Street 12"
		Radbourne Street ... 12"

SEWERS RE-LAID, 1893.

Grange Street (Portion of.)		Gisborne Street.
-----------------------------	--	------------------

SILT taken from the River Derwent during 1893	... 131	Boat loads
SAND ditto	ditto ... 24	ditto.
SILT taken from the Markeaton Brook during 1893...	69	loads.
GRAVEL ditto	ditto ... 45	loads.

WATER USED DURING 1893.

								Gallons.
Sewer Flushing	...	...	...	...	...	...	...	7,424,200
Court Flushing and Cleansing	...	...	...	...	...	...	...	272,500
Street Watering	...	...	...	...	...	...	...	10,219,790
Steam Roller	...	...	...	...	...	...	...	510,030
Cab Stands, Bridges, Wood Pavement, &c.	...	...	...	...	...	...	...	185,570
<hr/>								
Total number of Gallons	...	...	...	...	...	...	...	18,612,090
<hr/>								

FLUSHING.

Disinfecting Powder used during 1893	...	10 Tons.
Disinfecting Fluid used during 1893	...	960 Gallons.

R. J. HARRISON,

BOROUGH ENGINEER.

APPENDIX.

TABLE I.

Population, Inhabited Houses, Births, Deaths, and Marriages in 1893.

(GROSS NUMBERS.)

Estimated Population to middle of 1893	...	...	...	97,341
Inhabited Houses (Census 1891)	...	...	...	19,199
Births	...	...	...	3,123
Deaths	...	...	...	1,772
Marriages	...	...	...	806
Population at Census, 1891	...	...	...	94,146
Area in Acres, ditto ditto	...	...	...	3,445
Average number of persons per house		...	4.9	

TABLE II.

Annual Birth Rate, Rate of Mortality, Death Rates among Children, and Deaths in Public Institutions in 1891, 1892 and 1893, and the average for the Ten Years, 1881 to 1890.

	1891.	1892.	1893.	Average for 10 years.
Birth Rate per 1,000 of the Population	30.5	31.6	32.0	33.8
Annual Rate of Mortality	18.9	18.3	18.2	18.6
Deaths of Children under one year of age, percentage of total Deaths	22.4	29.5	27.3	26.1
Percentage of Deaths of Children under one year of age to Registered Births	13.9	17.1	15.5	14.3
Deaths of Children under five years of age, percentage of total Deaths	34.2	42.5	40.6	40.4
*Total number of Deaths in Public Institutions	234	216	237	...

* Includes Deaths in Workhouse, Royal Infirmary, Children's Hospital, Borough Infectious Hospital, and Borough Asylum.

TABLE III.

*The number of Births and Deaths in each Quarter of the Years 1891, 1892, and
1893, and the average of the same for the Ten Years, 1881 to 1890.*

QUARTERS.	BIRTHS.			DEATHS.				Average for 10 years.
	1891.	1892.	1893.	QUARTERS.	1891.	1892.	1893.	
March.....	738	682	795	769	409	527	527	438
June.....	799	754	825	747	578	460	421	378
Sept.	704	810	739	706	356	409	442	365
Dec.	644	792	764	728	449	368	476	429

TABLE IV.

*The Annual Rate of Births and Deaths to 1,000 of the population in each Quarter
of the Years 1891, 1892 and 1893, and the Annual average rate of the same
for the Ten Years, 1881 to 1890.*

QUARTERS.	BIRTHS.			DEATHS.			AVERAGE FOR 10 YEARS.
	1891.	1892.	1893.	QUARTERS.	1891.	1892.	
March.....	31.2	28.4	32.6	35.2	17.3	22.0	20.0
June.....	32.8	31.3	33.9	34.0	24.4	19.1	17.3
Sept.....	29.6	33.7	30.3	32.0	15.0	17.0	16.4
Dec.....	27.2	33.0	31.3	33.2	18.9	15.3	19.5

TABLE V.

Showing the Mortality of certain classes of Diseases, Total Deaths, Proportion of Deaths to Population, and to 1,000 deaths in 1891, 1892 and 1893, and the average for the 10 years, 1881 to 1890.

	Total Deaths.				Deaths per 1,000 of Population.				Proportion of Deaths to 1,000 Deaths.			
	1891.	1892.	1893.	Average for 10 years.	1891.	1892.	1893.	Average for 10 years.	1891.	1892.	1893.	Average for 10 years.
					1891.	1892.	1893.	Average for 10 years.	1891.	1892.	1893.	Average for 10 years.
1. Seven principal Zymotic Diseases ...	126	174	190	175	1.3	1.8	1.9	2.0	70.3	98.5	107.2	108.0
2. Pulmonary Diseases (other than Phthisis) ...	370	295	289	284	3.9	3.0	2.9	3.3	206.4	167.1	163.0	174.3
3. Tubercular Diseases ...	165	170	168	194	1.7	1.7	1.7	2.2	92.0	96.3	94.8	119.5
4. Wasting Diseases of Children ...	151	186	170	167	1.5	1.9	1.7	1.9	84.2	105.3	95.9	102.9
5. Convulsive Diseases of Children ...	103	148	140	131	1.0	1.5	1.4	1.5	57.4	83.8	79.0	80.8

1. Includes Small Pox, Measles, Scarlet Fever, Diphtheria, Whooping Cough, Fever, Diarrhoea.

3. Includes Phthisis, Tubercular Meningitis, Tabes Mesenterica.

4. Includes Atrophy, Debility, Premature Birth.

5. Includes Convulsions, Teething.

TABLE VI.

The number of Deaths and Proportions to 1,000 Deaths from the seven principal Zymotic diseases in 1891, 1892 and 1893, and the averages of the same for the 10 years, 1881 to 1890.

	Number of Deaths.			Proportion of Deaths to 1,000 Deaths.				
	1891.	1892.	1893.	Average for 10 years.	1891.	1892.	1893.	Average for 10 years.
Small Pox...	...	...	7	.9	...	...	3.9	.5
Measles ...	24	20	15	36.3	13.4	11.3	8.4	22.3
Scarlet Fever ...	9	7	14	20.9	5.0	3.9	7.9	12.8
Whooping Cough	38	59	44	38.1	21.2	33.4	24.3	23.4
Diphtheria ...	17	20	6	6.2	9.6	11.3	3.3	3.8
*Fever ...	12	8	21	22.6	6.7	4.5	11.8	13.9
Diarrhoea ...	26	60	83	45.3	14.5	33.9	46.8	27.8

* Includes Typhus, Typhoid, and Continued Fever.

T A B L E V I I.

** The Relative positions of the 33 large Towns of England as regards their rate of mortality in 1893.*

TOWNS.	Rate per 1,000.	TOWNS.	Rate per 1,000.	TOWNS.	Rate per 1,000.
Croyden ...	16.3	Swansea ...	19.6	Birmingham ...	22.0
Huddersfield ...	17.2	Cardiff ...	19.7	Leeds ...	22.3
Halifax ...	17.4	Leicester ...	20.0	Sheffield ...	
Derby ...	18.2	Birkenhead ...	20.5	Sunderland ...	22.5
Portsmouth ...		Oldham ...	21.0	Wolverhampton ...	23.3
Brighton ...	18.4	Bradford ...		Blackburn ...	
Nottingham ...	18.5	Newcastle-on-Ty ...	21.2	Bolton ...	24.1
West Ham ...	18.9	Plymouth ...		Salford ...	
Bristol ...		London ...	21.3	Manchester ...	24.9
Norwich ...	19.3	Hull ...	21.8	Preston ...	26.4
Gateshead ...		Burnley ...	21.9	Liverpool ...	27.3

** The Relative positions of the 33 large Towns of England as regards their Infantile Mortality in 1893.*

TOWNS.	Deaths to 1000 births.	TOWNS.	Deaths to 1000 births.	TOWNS.	Deaths to 1000 births.
Bristol ...	141	Halifax ...	173	Leeds ...	206
Huddersfield ...		Newcastle-on-Ty ...	174	Hull ...	
Croyden ...	155	Cardiff ...	179	Wolverhampton ...	208
Derby ...	156	Oldham ...	187	Salford ...	210
London ...	164	Sunderland ...	188	Liverpool ...	211
Portsmouth ...		Sheffield ...	191	Leicester ...	220
Brighton ...	169	Norwich ...	195	Burnley ...	223
Plymouth ...		Birkenhead ...	196	Blackburn ...	241
West Ham ...	170	Bradford ...	197	Preston ...	269
Swansea ...		Birmingham ...	198		
Nottingham ...	170	Bolton ...	199		
Gateshead ...		Manchester ...	203		

** The Relative positions of the 33 large Towns of England as regards their Zymotic mortality in 1893.*

TOWNS.	Rate per 1,000.	TOWNS.	Rate per 1,000.	TOWNS.	Rate per 1,000.
Huddersfield ...	1.2	Birmingham ...	3.0	Salford ...	4.1
Bristol ...	1.7	London ...	3.1	Blackburn ...	
Halifax ...		Norwich ...		Hull ...	4.7
Brighton ...	1.8	Cardiff ...	3.3	Bolton ...	
Swansea ...		West Ham ...		Preston ...	6.0
Derby ...	2.1	Bradford ...	3.4		
Croyden ...	2.2	Sunderland ...			
Oldham ...	2.5	Leeds ...			
Newcastle-on-Ty. ...		Sheffield ...	3.5		
Nottingham ...	2.6	Gateshead ...			
Portsmouth ...	2.8	Manchester ...	3.7		
Plymouth ...		Burnley ...	3.8		
Wolverhampton ...	2.8	Liverpool ...	3.9		
Birkenhead ...		Leicester ...	4.0		

* These positions are tabulated from the returns for 1893 by the Registrar General, and hold good for the sake of comparison. The figures in your Medical Officer's general report do not quite coincide with the Registrar General's because your Medical Officer takes all the deaths that actually occur from January 1st to December 31st inclusive, whereas the Registrar General includes those that are registered during the year.

QUARTERLY AND ANNUAL
ANALYSES OF DEATHS.

ANALYSIS

DURING THE QUARTER

(1)

CAUSES OF DEATH.	Deaths of Persons and the Ages.										Infirmary	Children's Hospital.	Infectious Hospital.	Asylum.	Sexes.							
	ALL AGES.	Under 20.			20 and under 40.			40 and under 60.							Residents.	Strangers.	Males.	Females.				
		0—1	1—5	5—20	20	40	60	80	Years and upwards.													
Small Pox { Vaccinated ..	I	..	..	..	..	I	..	..	..	..	..	..	..	..	I	..	I	..
Unvaccinated ..	3	I	..	..	..	..	..	2	..	..	..	..	..	..	3	I	I	2
No Statement ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles...	13	3	9	I	..	..	..	..	..	..	..	..	..	..	..	6	7	..
Scarlet Fever ..	2	..	I	I	..	..	..	..	..	..	..	I	..	..	..	I	I	..
Typhus...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Relapsing Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Influenza ...	6	2	..	..	I	..	I	2	I	..	..	I	..	..	..	2	4	..
Whooping-cough ..	13	2	10	I	..	..	..	..	..	..	..	..	..	..	..	3	10	..
Diphtheria ...	3	..	..	3	..	..	..	..	..	..	..	I	..	..	..	I	2	..
Simple Continued and Ill-defined Fever ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever ...	3	..	..	..	..	3	..	..	..	..	..	I	..	..	..	2	I	..
Simple Cholera ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhoea, Dysentery ...	3	2	..	I	..	..	..	..	..	..	..	..	..	..	..	2	I	..
Remittent Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hydrocephalus ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Glanders ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cow-pox and Effects of Vaccination ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Venereal Affections ...	2	I	..	..	..	..	I	..	..	..	I	I	..	..	..	..	2	..
Erysipelas ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pyæmia and Septicæmia ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever ...	2	..	..	I	I	..	..	..	..	..	..	..	..	..	..	..	2	..
Other Zymotic Diseases ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Thrush ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Worms and other Parasitical Diseases ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Starvation, Want of Breast-milk ...	..	..	..	..	..	..	I	..	..	..	..	..	..	..	..	..	..	..
Alcoholism ...	..	..	..	I	..	..	..	..	..	..	..	..	..	..	..	..	I	..
Rheumatic Fever and Rheumatism of Heart ...	4	..	..	I	2	I	..	..	..	..	I	..	..	..	..	3	I	..
Rheumatism ...	I	..	..	..	I	..	..	..	..	..	..	..	..	..	..	..	..	..
Gout ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rickets ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cancer ...	12	..	..	..	2	..	6	4	..	3	..	I	..	..	..	4	8	..
Tabes Mesenterica ...	5	4	I	..	..	..	..	..	..	..	..	..	..	..	..	4	I	..
Tubercular Meningitis ...	3	I	2	..	I	18	8	2	..	6	..	..	..	..	..	..	3	..
Phthisis ...	29	..	..	I	I	..	..	..	..	..	..	..	..	..	..	2	19	IO
Scrofula, Tuberculosis ...	2	I	I	..	..	..	..	..	..	..	..	..	..	..	..	..	I	I
Other Constitutional Diseases ...	20	I8	I	..	..	I	..	..	I	..	I	..	..	..	..	10	IO	..
Premature Birth ...	I3	I3	..	..	..	..	..	..	..	..	..	..	..	..	..	6	7	..
Atelectasis ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Congenital Malformations ...	I	I	..	..	..	..	..	..	..	..	..	..	..	..	..	..	I	..
Old Age ...	34	..	..	..	..	..	I5	I9	7	..	..	..	..	..	..	2	16	I8
Apoplexy ...	10	..	..	..	..	..	4	6	..	..	I	..	..	..	..	7	3	..
Epilepsy ...	2	..	..	..	I	I	..	..	..	I	..	..	..	..	..	I	I	..
Convulsions ...	30	26	3	I	..	..	..	..	..	..	..	..	..	..	..	17	I3	..
Other Diseases of Brain and Nervous System ...	25	3	3	..	I	IO	7	I	3	I	..	..	..	..	..	5	16	9
Diseases of Organs of Special Sense ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
TOTAL ...	243	78	31	II	30	36	37	20	22	7	2	4	10	123	120			

BIRTHS registered during the Quarter—

Legitimate ...	376	Females.	..	755	Total.
Illegitimate ..	20	..	20	40	{ 795

OF DEATHS,

ENDING MARCH 31ST, 1893.

(1)

CAUSES OF DEATH.	Deaths of Persons and the Ages.										Children's Hospital.	Sexes.						
	ALL AGES.	Under 20.			20 and under 40.			40 and under 60.				Workhouse.						
		0—1	1—5	5—20.	20	40.	60.	60	80.	80 Years and upwards.		Residents.	Strangers.	Infectious Hospital.	Asylum.	Males.	Females.	Total.
Diseases of Circulatory System	35	...	I	3	2	16	II	2	...	...	...	...	...	I	15	20	35
Croup ...	5	...	5	...	...	...	...	...	...	...	...	...	...	4	I	5	5
Bronchitis ...	52	7	10	1	2	10	21	I	4	...	I	...	...	25	27	52	52
Pneumonia ...	22	6	6	2	4	2	2	...	...	...	...	...	...	9	13	22	22
Pleurisy ...	4	...	...	...	...	2	2	...	...	...	...	...	...	2	2	4	4
Other Diseases of Respiratory System ...	5	2	...	...	I	I	...	I	...	...	...	...	...	4	I	5	5
Dentition ...	5	4	I	...	...	...	...	...	...	...	...	...	...	3	2	5	5
Quinsy, Sore Throat ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteritis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Peritonitis ...	2	...	2	2	2	2	2
Diseases of Liver ...	6	...	...	2	3	I	...	...	...	...	I	...	...	4	2	6	6
Other Diseases of Digestive System ...	14	8	...	I	I	3	I	...	...	2	...	...	...	2	12	14	14
Diseases of Lymphatic System & of Ductless Glands ...	2	...	I	...	...	I	...	...	I	...	...	...	...	I	I	2	2
Diseases of Urinary System ...	12	...	...	...	I	5	5	I	I	...	...	...	...	9	3	12	12
Diseases of Generative System ...	I	I	I	I	I	I
Accidents of Childbirth ...	6	...	...	...	...	6	...	...	...	...	...	...	...	6	6	6	6
Diseases of Locomotive System ...	2	...	...	...	I	...	I	...	...	...	I	...	...	I	I	2	2
Diseases of Integumentary System ...	I	...	...	...	...	...	I	...	...	...	...	...	...	I	I	I	I
VIOLENT DEATHS.																		
(ACCIDENT.)																		
Fracture and Contusion ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gunshot Wound ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cut, Stab ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Burn and Scald ...	5	...	3	I	...	...	I	...	...	I	...	3	...	4	I	5	5
Poison ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Drowning ...	2	...	...	I	I	...	...	...	...	...	...	...	...	I	I	2	2
Suffocation ...	I	I	...	...	...	...	...	...	...	...	...	...	...	I	I	I	I
Otherwise ...	2	...	...	...	I	..	I	...	...	...	I	...	...	2	..	2	2
(HOMICIDE.)																		
Murder and Manslaughter ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(SUICIDE.)																		
Gunshot Wound ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cut, Stab ...	I	...	...	...	...	I	...	...	...	...	...	...	...	I	I	I	I
Poison ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Drowning ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hanging ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Otherwise ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(EXECUTION.)																		
Hanging ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
OTHER CAUSES ...	5	I	3	...	...	I	...	...	I	...	...	...	...	2	3	5	5
TOTAL ...	433	107	63	20	47	87	84	25	29	II	4	4	4	II	213	220	433	

DEATHS registered during the corresponding Quarter 1892 ... 527.

Death Rate = 17.79 per 1,000.

ANALYSIS

DURING THE QUARTER

(2)

CAUSES OF DEATH.	Deaths of Persons and the Ages.										Infirmary			Children's Hospital.		Sexes.	
	ALL AGES.	Under 20.			20 and under 40.			40 and under 60.			60 and under 80.			Residents.	Strangers.	Residence.	Strangers.
		0—1	1—5	5—20													
Small Pox { Vaccinated	I				I									I	I	I	
Unvaccinated	I	I												I	I	I	
No Statement																	
Measles...	I	I															I
Scarlet Fever ...	4		I	3													4
Typhus ...																	
Relapsing Fever ...																	
Influenza ...	10	I	I	I	2	4	I									8	2
Whooping-cough ...	6	I	4	I												2	4
Diphtheria ...																	
Simple Continued and Ill-defined Fever ...																	
Enteric Fever ...	2				2											2	
Simple Cholera ...																	
Diarrhoea, Dysentery ...	7	6				I										3	4
Remittent Fever .																	
Hydrocephalus ...																	
Glanders ...																	
Cow-pox and Effects of Vaccination ...																	
Venereal Affections ...	I	I														I	
Erysipelas ...	I	I														I	
Pyæmia and Septicæmia ...	2					2											2
Puerperal Fever ...																	
Other Zymotic Diseases ...																	
Thrush ...																	
Worms and other Parasitical Diseases ...																	
Starvation, Want of Breast-milk ...																	
Alcoholism ...	I					I										I	
Rheumatic Fever and Rheumatism of Heart ...	I							I									I
Rheumatism ...																	
Gout ...																	
Rickets ...																	
Cancer ...	20				I	9	10									8	12
Tabes Mesenterica ...	2	2														I	I
Tubercular Meningitis ...	3	3														3	
Phthisis ...	39		3	26	9	I										I	22
Scrofula, Tuberculosis ...	4	I	3													I	3
Other Constitutional Diseases ...	25	21	3			I										18	7
Premature Birth ...	21	21														15	6
Atelectasis ...																	
Congenital Malformations ...																	
Old Age ...	29							19	10	4						10	19
Apoplexy ...	6							2	3	I						3	3
Epilepsy ...	2				I	I										2	I
Convulsions ...	28	25	2	I												12	16
Other Diseases of Brain and Nervous System ...	25	3	9		3	3	7									3	16
Diseases of Organs of Special Sense ...																	
TOTAL ...	242	83	25	12	36	32	43	11	12	4	4	2	6	127	115	2	

BIRTHS registered during the Quarter— Total.

Legitimate ...	413	...	386	...	799	{
Illegitimate ..	9	...	17	...	26	

Males. Females. 825

O F D E A T H S ,

ENDING JUNE 30TH, 1893.

CAUSES OF DEATH.	Deaths of Persons and the Ages.										Infirmary		Children's Hospital.		Sexes.		
	ALL AGES.	Under 20.			20 and under 40.			40 and under 60.									
	0—1	1—5.	5—20.														
Diseases of Circulatory System	42	I	...	3	8	9	21	...	4	4	I	...	...	I	17	25	42
Croup ...	2	...	2	...	...	...	...	...	...	...	...	...	...	...	I	I	2
Bronchitis ...	39	9	I	...	4	20	5	5	...	...	...	...	...	...	27	12	39
Pneumonia ...	23	4	10	...	4	I	4	...	...	...	...	...	...	I	12	11	23
Pleurisy ...	2	...	...	I	...	...	I	...	...	...	...	...	...	...	2	...	2
Other Diseases of Respiratory System ...	7	I	2	...	...	I	3	...	...	...	I	I	...	...	2	5	7
Dentition ...	14	5	9	...	...	...	...	...	...	...	...	...	...	...	9	5	14
Quinsy, Sore Throat ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteritis ...	I	...	...	...	...	I	...	...	...	...	...	...	...	...	I	I	I
Peritonitis ...	4	...	2	...	...	I	...	I	...	...	...	...	...	...	2	2	4
Diseases of Liver ...	8	...	1	I	5	I	...	...	...	...	...	...	...	...	3	5	8
Other Diseases of Digestive System ...	6	3	...	I	2	...	...	...	...	I	...	...	...	...	4	2	6
Diseases of Lymphatic System & of Ductless Glands ...	I	...	...	I	...	...	...	...	...	...	...	...	...	...	I	...	I
Diseases of Urinary System ...	9	I	...	I	2	2	3	...	...	2	I	...	...	...	5	4	9
Diseases of Generative System ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Accidents of Childbirth ...	2	...	...	...	...	2	...	...	I	...	...	...	...	...	2	2	2
Diseases of Locomotive System ...	I	...	...	...	...	...	I	...	...	...	...	...	...	...	...	1	I
Diseases of Integumentary System ...	2	2	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2
VIOLENT DEATHS.																	
(ACCIDENT.)																	
Fracture and Contusion ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gunshot Wound ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cut, Stab ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Burn and Scald ...	2	...	...	I	...	...	...	...	I	...	I	...	...	...	2	...	2
Poison ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Drowning ...	2	I	I	...	...	...	...	...	...	...	...	...	...	...	I	I	2
Suffocation ...	2	I	...	...	I	...	...	...	...	...	...	...	...	...	2	2	2
Otherwise ...	5	...	...	...	I	...	4	...	...	2	I	...	...	...	3	2	5
(HOMICIDE.)																	
Murder and Manslaughter ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(SUICIDE.)																	
Gunshot Wound ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cut, Stab ...	...	I	...	...	...	...	I	...	...	...	...	...	...	...	I	...	I
Poison ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Drowning ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hanging ...	...	I	...	...	...	...	...	I	...	...	...	...	...	...	I	...	I
Otherwise ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(EXECUTION.)																	
Hanging ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
OTHER CAUSES ...	3	I	I	...	...	...	I	...	...	I	...	...	...	...	2	I	3
TOTAL ...	421	112	51	21	55	61	103	18	22	14	9	2	2	7	224	197	421

DEATHS registered during the corresponding Quarter 1892 ... 19.1.

Death Rate = 17.2 per 1,000.

ANALYSIS

DURING THE QUARTER

(3)

CAUSES OF DEATH.	Deaths of Persons and the Ages.										Workhouse.			Infirmary			Children's Hos-pital.		Sexes.					
	ALL AGES.		Under 20.		20 and under 40.		40 and under 60.		60 and under 80.		80 Years and upwards.		Residents.		Strangers.		Residence.		Infectious Hospital.		Males.		Females.	
		O—I	1—5	5—20																			Total	
Small Pox { Vaccinated		
Unvaccinated		
No Statement		
Measles...	...	I	...	I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	I	...	
Scarlet Fever	6	...	2	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	4	...	
Typhus	
Relapsing Fever	
Influenza	2	...	...	...	...	...	I	I	...	...	...	...	...	...	...	...	...	...	...	2	...	...
Whooping-cough	...	10	4	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	4	10
Diphtheria	2	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	I	I	...	
Simple Continued and Ill-defined Fever	
Enteric Fever	6	...	2	3	I	...	...	...	...	...	...	...	...	...	2	...	...	...	...	3	3	0	
Simple Cholera	I	...	...	...	...	...	I	I	...	...	...	...	...	...	...	...	...	...	...	I	...	...
Diarrhoea, Dysentery	67	50	12	I	I	I	I	I	I	I	I	I	I	I	...	...	...	...	35	32	65		
Remittent Fever	
Hydrocephalus	
Glanders	
Cow-pox and Effects of Vaccination	
Venereal Afections	5	3	...	...	2	...	...	...	...	...	...	...	...	I	...	...	...	...	...	I	4	...	
Erysipelas	2	...	...	...	I	...	I	...	...	...	...	...	...	...	...	...	...	...	...	I	I	...	
Pyæmia and Septicæmia	
Puerperal Fever	2	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	
Other Zymotic Diseases	
Thrush	
Worms and other Parasitical Diseases	
Starvation, Want of Breast-milk	
Alcholism	I	...	...	...	...	...	I	...	...	...	...	...	...	...	...	...	...	...	...	I	...	...
Rheumatic Fever and Rheumatism of Heart	I	...	...	I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	I	...	...
Rheumatism	I	...	...	...	...	...	...	I	...	...	...	...	...	...	...	...	...	...	...	I	...	...
Gout	
Rickets	
Cancer	20	...	...	...	I	I	13	6	...	...	3	...	I	...	...	...	...	...	9	II	20		
Tabes Mesenterica	13	6	4	3	...	...	...	...	...	...	...	...	...	...	I	...	...	...	6	7	I	...	
Tubercular Meningitis	3	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	I	...	
Phthisis	38	I	...	9	16	9	3	...	...	...	3	2	I	...	...	...	...	...	2	23	I5	33	
Scrofula, Tuberculosis	4	I	...	I	I	I	...	...	...	...	...	...	...	...	...	...	...	...	2	2	2	...	
Other Constitutional Diseases	...	40	34	5	...	...	...	...	I	...	...	3	...	...	...	...	...	...	...	20	20	40	...
Premature Birth	8	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	3	...	
Atelectasis	
Congenital Malformations	
Old Age	26	...	...	...	...	...	...	I5	I1	5	...	...	...	...	...	...	...	...	2	18	8	20	
Apoplexy	7	...	...	...	I	4	2	...	...	...	...	...	...	...	...	...	...	...	...	4	3	...	
Epilepsy	3	...	...	3	...	...	...	...	...	...	...	I	...	...	...	...	...	...	...	2	1	...	
Convulsions	19	16	2	...	I	...	...	...	...	...	...	...	...	...	...	...	...	...	I	8	II	I	
Other Diseases of Brain and Nervous System	30	4	5	2	...	5	13	I	6	...	...	I	I	...	4	18	12	3	...	...	...	...
Diseases of Organs of Special Sense	
TOTAL	318	127	40	25	34	37	42	13	23	4	2	1	2	9	169	149	3	...	...	...	...	...

BIRTHS registered during the Quarter—

Males.	Females.	Total.
Legitimate ...	367	346
Illegitimate ..	13	13
	...	26
	...	26
	...	26

OF DEATHS,

ENDING SEPT. 30TH, 1893.

(3)

CAUSES OF DEATH.	Deaths of Persons and the Ages.										Infirmary			Children's Hospital.			Sexes.					
	All Ages.	Under 20.			20 and under 40.			40 and under 60.			60 and under 80.			80 Years and upwards.			Residents.	Strangers.	Residents.	Strangers.	Infectious Hospital.	Asylum.
		0-1	1-5.	5-20.																		
Diseases of Circulatory System	27	..	...	3	3	11	10	...	3	...	...	...	...	...	...	...	6	21	27		
Croup ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bronchitis ...	21	3	6	...	...	6	4	2	3	...	...	...	...	...	...	...	12	9	21		
Pneumonia ...	14	1	3	...	2	5	3	...	...	...	...	...	...	...	...	...	8	6	14		
Pleurisy ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Diseases of Respiratory System ...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1		
Dentition ...	9	5	4	...	...	...	...	...	...	...	...	...	...	...	...	...	3	6	9		
Quinsy, Sore Throat ...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1		
Enteritis ...	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	5			
Peritonitis ...	7	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	5	2	7			
Diseases of Liver ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8	8	16		
Other Diseases of Digestive System ...	16	4	2	...	7	3	...	...	1	1	1	1	1	1	1	1	2	2	16		
Diseases of Lymphatic System & of Ductless Glands ...	2	...	1	...	1	...	1	...	...	...	...	...	...	...	...	...	2	...	2		
Diseases of Urinary System ...	7	1	...	...	2	4	...	...	...	...	...	...	...	...	...	...	3	4	7		
Diseases of Generative System ...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Accidents of Childbirth ...	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1	1	1			
Diseases of Locomotive System ...	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2		
Diseases of Integumentary System ...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1		
VIOLENT DEATHS.																						
(ACCIDENT.)																						
Fracture and Contusion ...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	1	1		
Gunshot Wound ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cut, Stab ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Burn and Scald ...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1		
Poison ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Drowning ...	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1	1	1			
Suffocation ...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1		
Otherwise ...	2	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	2	...	2		
(HOMICIDE.)																						
Murder and Manslaughter ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(SUICIDE.)																						
Gunshot Wound ...	1	...	...	1	...	...	1	...	...	...	...	...	...	...	1	...	1	...	1	1	
Cut, Stab ...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	1	1	
Poison ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Drowning ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hanging ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Otherwise ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(EXECUTION.)																						
Hanging ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
OTHER CAUSES ...	2	2	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	3	2	2	
TOTAL ...	442	148	56	34	45	74	70	15	29	9	6	1	3	9	230	212	442					

DEATHS registered during the corresponding Quarter 1892 ... 409.

Death Rate = 18.1 per 1,000.

ANALYSIS

DURING THE QUARTER

CAUSES OF DEATH.	Deaths of Persons and the Ages.										Infirmary			Children's Hospital.			Sexes.							
	ALL AGES.	Under 20.			20 and under 40.			40 and under 60.			60 and under 80.			80 Years and upwards.			Residents.	Strangers.	Residence.	Strangers.	Infectious Hospital.	Asylum.	Males.	Females.
		0—1	1—5	5—20																				
Small Pox { Vaccinated																								
Unvaccinated	I			I													I			I	I	I		
No Statement																								
Measles...																								
Scarlet Fever ..	2			I	I														I	I	I	2		
Typhus ...																								
Relapsing Fever																								
Influenza ...	24	3	3	I	7	5	4	I											9	15	24			
Whooping-cough	15	4	10	I															8	7	15			
Diphtheria ...	I		I																I	I	I			
Simple Continued and Ill-defined Fever																								
Enteric Fever ...	10			4	5	I											6			7	3	10		
Simple Cholera																								
Diarrhoea, Dysentery ...	6	5						I									I			3	3	6		
Remittent Fever																								
Hydrocephalus ...																								
Glanders ...																								
Cow-pox and Effects of Vaccination ...																								
Venereal Affections ...	I	I																		I		I		
Erysipelas ...																								
Pyæmia and Septicæmia ...	2		I		I												I	I		2		2		
Puerperal Fever ...	2				I	I														2		2		
Other Zymotic Diseases																								
Thrush ...	I		I																I		I			
Worms and other Parasitical Diseases ...																								
Starvation, Want of Breast-milk ...																								
Alcoholism ...																								
Rheumatic Fever and Rheumatism of Heart ...																								
Rheumatism ...	3																				3	3		
Gout ...																								
Rickets ...																								
Cancer ...	15																			9	6	15		
Tabes Mesenterica ...	5	2	3																	3	2	5		
Tubercular Meningitis ...	2	I		I															I	I	I	2		
Phthisis ...	26		3	3	I2	8											I		I	12	I4	26		
Scrofula, Tuberculosis ...	7		3	3	1												I	I		4	3	7		
Other Constitutional Diseases	31	27	2					I	I											19	12	31		
Premature Birth ...	I2	I2																			8	4	12	
Atelectasis ...																								
Congenital Malformations ...	I	I																		I	I	I		
Old Age ...	34																			2	I3	21		
Apoplexy ...	I3																		I	8	5	I3		
Epilepsy ...	2																		2	I	I	2		
Convulsions ...	27	21	6														I		I2	I5	27			
Other Diseases of Brain and Nervous System ...	20		3	I	6	5	5	5									I		I	I4	6	20		
Diseases of Organs of Special Sense ...																								
TOTAL ...	263	77	36	I6	39	37	39	I9	I4	9	2	3	I	7	I36	I27	263							

BIRTHS registered during the Quarter—

Legitimate ...	396	Females.	Total.
Illegitimate ...	18	...	737
	9	...	27
			764

OF DEATHS,

ENDING DEC. 31ST, 1893.

(4)

CAUSES OF DEATH.	Deaths of Persons and the Ages.											Infirmary			Children's Hospital.		Sexes.		
	All Ages.	Under 20.				20 and under 40.				Workhouse.			Residents.	Strangers.	Infectious Hospital.	Asylum.	Males.	Females.	Total.
		0—1	1—5.	5—20.	20 and under 40.	40 and under 60.	60 and under 80.	80 Years and upwards.											
Diseases of Circulatory System	38	I	I	3	5	9	17	2		I	I	I	...	...	18	20	38
Croup	I	.....	I	.....	.....	.....	.....	.....		.....	.....	.....	.....	.....	I	.....	I
Bronchitis	63	16	10	I	I	II	22	2		2	.....	.....	.....	.....	25	38	63
Pneumonia	22	6	6	3	2	5	.....	.....		.....	.....	I	.....	.....	I4	8	22
Pleurisy	.....	.....	.....	.....	.....	.....	.....	.....		.....	.....	.....	.....	.....	.....	.....	.....
Other Diseases of Respiratory System	6	2	I	.....	.....	2	I	.....		.....	.....	.....	.....	.....	4	2	6
Dentition	8	3	5	.....	.....	.....	.....	.....		I	.....	.....	.....	.....	3	5	8
Quinsy, Sore Throat	.....	.....	.....	.....	.....	.....	.....	.....		.....	.....	.....	.....	.....	.....	.....	.....
Enteritis	I	I	.....	.....	.....	.....	.....	.....		.....	.....	.....	.....	.....	I	.....	I
Peritonitis	I	.....	.....	I	.....	.....	.....	.....		.....	.....	.....	.....	.....	I	.....	I
Diseases of Liver	I3	.....	I	3	7	2	.....	.....		.....	.....	.....	.....	I	7	6	I3
Other Diseases of Digestive System	16	4	2	I	3	3	3	.....		2	I	.....	.....	.....	6	10	I6
Diseases of Lymphatic System & of Ductless Glands	.....	.....	.....	.....	.....	.....	.....	.....		.....	.....	.....	.....	.....	.....	.....	.....
Diseases of Urinary System	10	.....	I	I	2	2	4	.....		I	I	.....	.....	.....	6	4	I0
Diseases of Generative System	I	.....	.....	.....	.....	I	.....	.....		.....	I	.....	.....	.....	I	.....	I
Accidents of Childbirth	3	.....	.....	.....	2	I	.....	.....		.....	.....	.....	.....	.....	3	3	3
Diseases of Locomotive System	3	I	.....	.....	.....	2	.....	.....		3	.....	.....	.....	.....	2	I	3
Diseases of Integumentary System	I	I	.....	.....	.....	.....	.....	.....		.....	.....	.....	.....	.....	I	I	I
VIOLENT DEATHS.																			
(ACCIDENT.)																			
Fracture and Contusion	
Gunshot Wound	
Cut, Stab	
Burn and Scald	6	.....	2	2	.....	.....	2	.....	.....	.....	2	I	.....	.....	I	5	6
Poison	2	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	2
Drowning	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Suffocation	4	3	.....	.....	I	.....	.....	.....	.....	.....	.....	.....	.....	.....	I	3	4
Otherwise	2	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	I	.....	.....	2	.....	2
(HOMICIDE.)																			
Murder and Manslaughter	
(SUICIDE.)																			
Gunshot Wound	2	.....	.....	.....	I	1	.....	.....	.....	.....	.....	I	.....	.....	2	.....	2
Cut, Stab	3	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	2	I	3
Poison	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Drowning	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hanging	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Otherwise	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
(EXECUTION.)																			
Hanging	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
OTHER CAUSES	7	3	.....	I	.....	I	2	..	2	.....	I	.....	.....	.....	....	7	7
TOTAL	476	118	65	30	61	85	94	23	23	15	10	4	I	8	233	243	476		

DEATHS registered during the corresponding Quarter 1892 ... 368.

Death Rate = 19.5 per 1,000.

ANALYSIS

DURING THE YEAR.

(5)

CAUSES OF DEATH.

		Deaths of Persons and the Ages.								Infirmary	Children's Hospital.	Infectious Hospital.	Asylum.	Sexes.						
		ALL AGES.	Under 20.			20 and under 40.	40 and under 60.	60 and under 80.	80 Years and upwards.					Males.	Females.	Total.				
			O—1	1—5	5—20															
Small Pox	Vaccinated	2	.....	.....	I	I	.....	.....	.....	.....	.....	.....	.....	2	.....	2
	Unvaccinated	5	2	.....	I	.....	.....	2	.....	.....	.....	.....	.....	2	3	5
	No Statement	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Measles...	...	15	4	10	I	.....	.....	.....	.....	.....	.....	.....	.....	7	8	1
Scarlet Fever	...	14	.....	4	9	I	.....	.....	.....	.....	.....	2	.....	4	10	14
Typhus...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Relapsing Fever	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Influenza	...	42	6	4	2	II	I2	6	I	.....	I	.....	.....	19	23	42	
Whooping-cough	...	44	II	30	3	.....	.....	.....	.....	I	.....	.....	.....	19	25	44
Diphtheria	...	6	.....	I	5	.....	.....	.....	.....	I	.....	.....	.....	2	4	6
Simple Continued and Ill-defined Fever	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Enteric Fever ...	...	21	.....	.....	6	I3	2	.....	.....	IO	I	.....	.....	14	7	21
Simple Cholera	...	I	.....	.....	.....	I	.....	.....	.....	.....	.....	.....	.....	.....	1	1
Diarrhoea, Dysentery	...	83	63	I2	2	I	3	I	I	2	.....	.....	.....	43	40	83	
Remittent Fever	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hydrocephalus	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Glanders	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cow-pox and Effects of Vaccination	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Venereal Affections	...	9	6	.....	.....	2	I	.....	.....	2	I	.....	.....	2	7	9
Erysipelas	...	3	I	.....	.....	I	.....	I	.....	.....	.....	.....	.....	1	2	3
Pyæmia and Septicæmia	...	4	.....	I	.....	I	2	.....	.....	I	I	I	.....	2	2	4
Puerperal Fever	...	6	.....	.....	I	4	I	.....	.....	.....	.....	.....	.....	.....	6	6
Other Zymotic Diseases	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Thrush ...	...	I	.....	I	.....	.....	.....	.....	.....	.....	.....	.....	.....	I	1	1
Worms and other Parasitical Diseases	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Starvation, Want of Breast-milk	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Alcoholism	...	3	.....	.....	.....	I	2	.....	.....	.....	.....	.....	.....	3	3	3
Rheumatic Fever and Rheumatism of Heart ...	...	6	.....	.....	2	2	I	I	.....	.....	I	.....	.....	4	2	6
Rheumatism	...	5	.....	.....	.....	I	I	3	.....	.....	.....	.....	.....	1	4	5
Gout	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rickets	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cancer ...	...	67	.....	.....	4	38	24	I	8	.....	3	.....	.....	30	37	67
Tabes Mesenterica	...	25	12	10	3	.....	.....	.....	.....	I	.....	I	.....	14	11	25
Tubercular Meningitis	...	II	2	8	I	.....	.....	.....	.....	.....	.....	I	.....	6	5	11
Phthisis	...	132	I	3	16	72	34	6	.....	I3	4	3	.....	6	76	56		
Scrofula, Tuberculosis	...	17	3	4	7	2	I	.....	2	I	.....	.....	.....	8	9	17
Other Constitutional Diseases	...	116	100	II	.....	2	3	.....	4	.....	.....	.....	.....	67	49	116
Premature Birth	...	54	54	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	34	20	54
Atelectasis	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Congenital Malformations	...	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	2	2
Old Age	...	123	.....	.....	.....	.....	66	57	22	.....	.....	.....	.....	6	57	66
Apoplexy	...	36	.....	.....	4	15	16	I	.....	.....	I	.....	.....	1	22	14
Epilepsy	...	9	.....	.....	7	2	.....	.....	2	.....	.....	.....	.....	5	5	9
Convulsions	...	104	88	I3	2	I	.....	.....	.....	I	.....	.....	.....	49	55	102
Other Diseases of Brain and Nervous System	...	100	10	20	3	10	23	32	2	I5	I	I	I	13	64	36				
Diseases of Organs of Special Sense	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
TOTAL	1066	365	I32	64	I39	I42	I61	63	71	24	10	4	2	7	32	555			
																	511			
																	106			

BIRTHS registered during the Year—

Legitimate	... 1552	...	Females.	... 1452	...	Total.	... 3004	3123
Illegitimate	... 60	...		59	...		119	

OF DEATHS,

ENDING DEC. 31ST, 1893.

CAUSES OF DEATH.	Deaths of Persons and the Ages.										Children's Hospital.			Sexes.												
	ALL AGES.	Under 20.			20 and under 40.			40 and under 60.			60 and under 80.			80 Years and upwards.			Infirmary	Workhouse.	Residents.	Strangers.	Residents.	Strangers.	Infectious Hospital.	Asylum.	Males.	Females.	Total.
Diseases of Circulatory System	142	2	2	12	18	45	59	4	8	5	2	...	...	2	56	86	142									
Croup	8	.....	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	2	8										
Bronchitis	175	35	27	2	3	31	67	10	14	.....	.....	.....	.....	89	86	175										
Pneumonia	81	17	25	5	12	13	9	.....	.....	1	1	1	1	43	38	81										
Pleurisy	6	....	....	1	...	2	3	...	...	...	...	...	...	4	2	6										
Other Diseases of Respiratory System	19	5	3	.....	2	4	4	1	.....	1	1	1	1	10	9	19										
Dentition	36	17	19	....	....	....	....	....	1	....	....	....	....	18	18	36										
Quinsy, Sore Throat	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Enteritis	3	2	....	....	....	1	....	....	....	....	....	....	....	2	1	3										
Peritonitis	12	1	2	4	1	2	1	1	.....	.....	.....	.....	.....	4	8	12										
Diseases of Liver	34	1	....	3	8	17	5	....	....	....	....	2	....	1	19	15	34									
Other Diseases of Digestive System	52	19	4	2	5	15	7	....	....	6	2	....	....	20	32	52										
Diseases of Lymphatic System & of Ductless Glands	5	....	1	....	2	1	1	....	1	....	....	....	....	4	1	5										
Diseases of Urinary System	38	2	1	2	5	11	16	1	1	3	2	....	....	23	15	38										
Diseases of Generative System	2	....	....	....	....	2	....	....	....	....	....	....	....	....	2	2	2									
Accidents of Childbirth	12	....	....	....	3	9	....	....	1	....	....	....	....	12	12	12										
Diseases of Locomotive System	8	1	....	2	1	2	2	....	....	3	1	....	....	4	4	8										
Diseases of Integumentary System	5	4	....	....	....	....	1	....	....	....	....	....	....	3	2	5										
VIOLENT DEATHS. (ACCIDENT.)											....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Fracture and Contusion	1	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Gunshot Wound	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Cut, Stab	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Burn and Scald	14	....	6	4	....	....	3	1	....	....	4	1	3	....	8	6	14									
Poison	2	....	....	....	....	2	....	....	....	....	....	....	....	....	2	....	2	....	....	....	....	....	....	....	....	....
Drowning	5	1	1	2	1	....	....	....	....	....	....	....	....	....	3	2	5									
Suffocation	8	6	....	....	2	....	....	....	....	....	....	....	....	....	3	5	8									
Otherwise	II	....	....	....	2	2	7	....	....	3	3	....	....	....	9	2	II									
(HOMICIDE.)											....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Murder and Manslaughter	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
(SUICIDE.)											....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Gunshot Wound	3	....	....	1	1	1	....	....	....	....	....	....	....	2	....	3	....	3	....	....	....	....	....	....	....	....
Cut, Stab	6	....	....	....	1	5	....	....	....	....	....	....	....	....	5	....	6	....	....	....	....	....	....	....	....	....
Poison	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Drowning	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Hanging	....	....	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Otherwise	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
(EXECUTION.)											....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Hanging	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
OTHER CAUSES	17	7	4	1	....	2	3	..	3	1	2	1	....	6	11	17										
TOTAL	1772	485	235	105	208	307	351	81	103	49	29	11	3	7	35	900	872	1772								

DEATHS registered during the Year 1892 ... 1792.

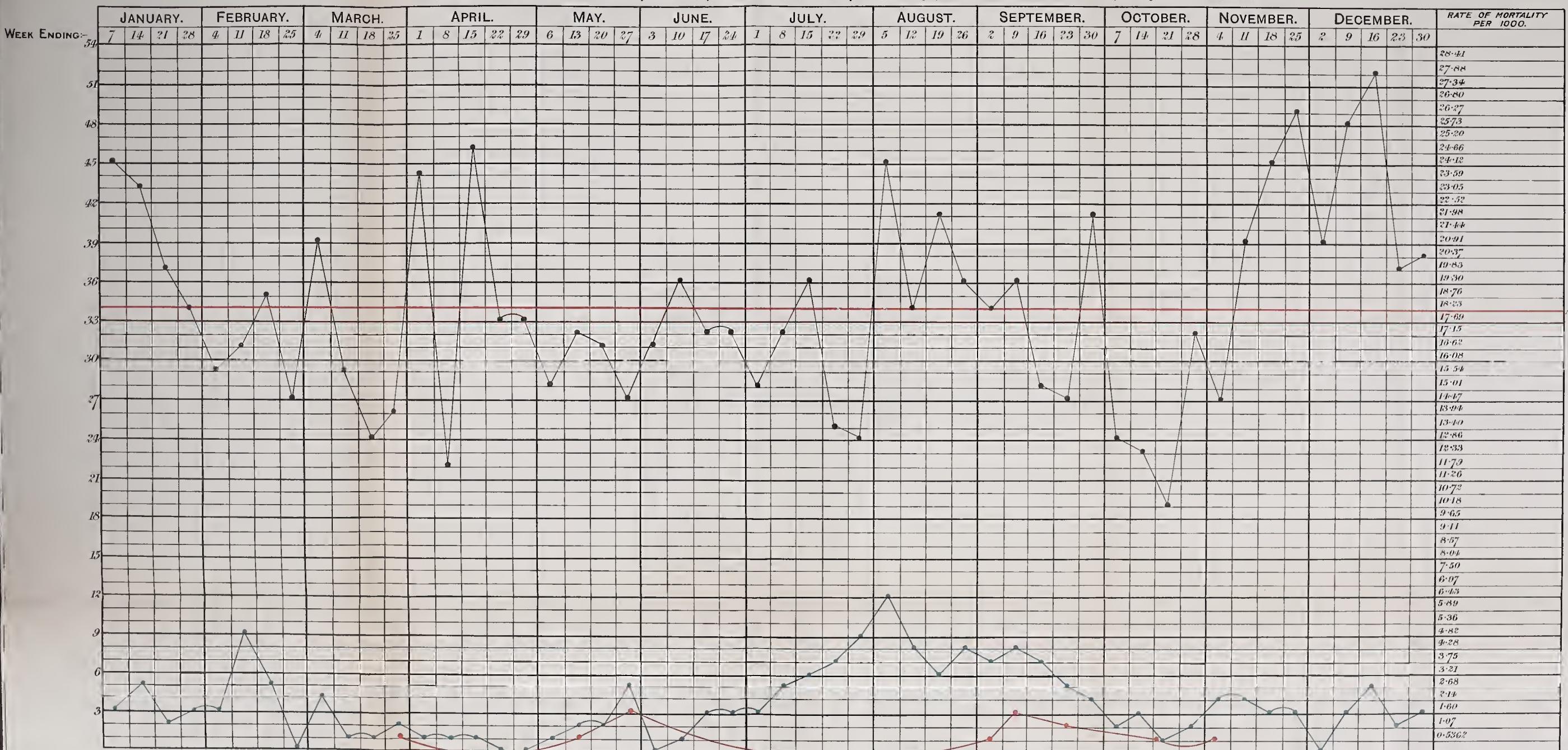
Death Rate = 18.2 per 1,000.

1893.

BOROUGH OF DERBY.

Population, 97,341.
Weekly do. 1,865.

Diagram showing total number of Deaths per week, and rate of Mortality per 1,000; also the same for Zymotic Diseases.



List of Streets in which Deaths occurred from Zymotic
and General Diseases, and the number of such
Deaths.

STREET.	Deaths from Zymotic Diseases.							Deaths from Non-Zymotic Diseases.	TOTAL.
	Small Pox.	Scarlet Fever.	Measles.	Fever.	Diphtheria.	Whooping Cough.	Diarrhoea.		
Abbey street	I	...	I	I	22	25
Ashbourne road	I	I	I	13	16
Agard street	6	6
Alexander street	I	7	8
Arboretum street	4	4
Albion st. & place	5	5
Ambrose street	1	1
Arthur street	I	7	8
Asylum	35	35
Arundel street	3	3
Alma street	I	I
Burton road	I	...	...	...	...	14	14
Bridge street	2	12	15
Bridge gate	I	2	II	14
Brook street	2	I	17	20
Boyer street	I	...	I	...	...	10	12
Borough's walk	5	5
Bloomfield street	2	2
Barlow street	I	4	5
Bloom street	2	2
Bedford street	4	4
Bradshaw street	3	3
Boundary rd. Upper	I	I
Bold lane	2	4	6
Belgrave street	2	2
Bateman street	3	3
Bainbrigge street	I	6	7
Byron street	I	...	...	4	5
Babington lane	2	2
Bath street	4	4
Britannia street	I	...	...	...	I	I
Boden street	3	4
Becket Well lane	4	4
Bourne street	2	2
Boundary road	I	I
Bright street	2	2
Bramble street	I	I
Bridge street, Little	I	I
Brough street	I	I
Brick street	I	I
Beecher street	4	4
Brook walk	I	I
Bass street	3	3
Canal street	...	I	I	...	...	...	I	4	7
Carrington st. & place	I	12	13
Co-operative street	I	...	...	...	I	14	16
Chester, Little	3	3
City road	I	...	...	I	...	6	7
Curzon street	I	...	...	...	6	6
Castle street	I	...	I	...	...	7	10

STREET.	Deaths from Zymotic Diseases.								Deaths from Non-Zymotic Diseases.	TOTAL.
	Small Pox.	Scarlet Fever.	Measles.	Fever.	Diphtheria.	Whooping Cough.	Diarrhoea.			
Full street	4	4
Ford street	4	4	5
Fleet street	5	1	5
Forman street	1	1	1
Frederick street	1	1	1
Grange street	4	4	6
Green street...	4	4	4
Green lane	4	4	4
Gerard street	II	12	12
Graham street	8	9	9
Goodwin street	9	10	10
Grove street...	5	5	5
Grayling street	3	5	5
Gisborne street	1	1
Great Northern road	3	3	3
Granville street	4	4	4
Gordon street	1	1	2
George yard...	4	4	4
Gower street	2	2	3
George street	2	2	2
Grey street	1	1	1
High street	I	...	...	...	...	...	9	10	10
Harrington street	I	...	...	...	2	2	5
Hartington street	3	3	3
Hope street	2	2	2
Haarlem street	2	2	3
Hill street	I	...	4	5	5
Horton street	2	2	2
Harrison street	I	1	2	4
Henry street	2	2	2
Harriett street	1	1	1
Harcourt street	3	3	3
Holmes street	I	...	...	...	...	5	6	6
Heyworth street	1	1	1
Hospital (Children's)	14	14	14
Hospital, Chester	7	...	...	...	...	...	...	...	...	7
Howard street	3	3	3
Infirmary	2	...	II	I	...	...	64	78	78
John street	I	...	...	...	...	I	II	13	13
Junction street	1	1	1
Jackson street	3	3	3
Jury street	1	1	1
Kedleston road	3	3	3
Kedleston street	I	...	...	2	3	3
King street	I	5	6	6
Kensington street	10	10	10
King Alfred street	3	3	3
London road	21	21	21
Leonard street	9	9	9
Liversage street	I	6	7	7
Litchurch street	I	...	...	...	10	11	11
Leaper street	2	2	2
Loudon street	I	1	1	1
Leman street	I	7	8	8
Leicester street	I	4	5	5
Lodge lane	I	3	4	4
Langley street	1	1	2
Larges street	3	3	3

STREET.	Deaths from Zymotic Diseases.									Deaths from Non-Zymotic Diseases.	TOTAL.
	Small Pox.	Scarlet Fever.	Measles.	Fever.	Diphtheria.	Whooping Cough.	Diarrhoea.				
Leyland street										3	3
Moore street										4	6
Morleston street										6	6
Madeley street		I								4	6
Macklin street										6	6
Mundy street										7	7
Mansfield street										7	7
Malcolm street										9	9
Morledge ...										9	9
Melbourne street										5	5
Merchant street										3	3
Milton street										7	7
Markeaton street										4	4
Midland road										2	2
Monk street...										9	9
Mill street ..				I						4	4
Molineaux street										2	2
Morley street										2	2
Mount street										4	4
Mill Hill ...									I	1	1
Mill Hill lane									I	1	1
Mill Hill road									I	1	1
Nottingham road				I					I	19	21
Normanton road									I	11	12
Nun street ...									I	13	13
Norman street									I	7	8
Nelson street									I	3	3
Noel street ...									I	4	4
Northumberland st.									I	3	3
North street...									I	3	3
New street ...									I	2	2
Newland street									I	2	2
North parade									I	2	2
Noble street...									I	1	2
Osmaston road			I						I	19	20
Oxford street									I	9	10
Orchard street									I	1	2
Oak street ...									I	2	2
Old Chester road									I	2	2
Parliament street									I	12	14
Park street ...									I	14	14
Peel street ...									I	4	4
Pear Tree road		I							I	7	10
Pear Tree street									I	5	6
Parker street									I	15	16
Parker street Back									I	2	2
Princess street									I	9	9
Provident street									I	3	3
Parcel terrace									I	2	2
Ponsonby terrace		I	I						I	1	3
Penny Long lane									I	3	3
Peet street ...									I	2	2
Poplar street									I	1	1
Payne street...									I	1	1
Queen street									I	5	6
Quarn street...									I	5	5
Rivett street...									I	9	9
Russel street									I	15	15

STREET.	Deaths from Zymotic Diseases.							Deaths from Non-Zymotic Diseases.	TOTAL.
	Small Pox.	Scarlet Fever.	Measles.	Fever.	Diphtheria.	Whooping Cough.	Diarrhoea.		
Rawdon street	I	..	..	2	3
Regent street	3	3
Roe street	2	..	..	5	7
Rose Hill street	4	4
Richmond road	5	5
Radbourne street	I	..	I	..	2	4
Richardson street	I	I
Rosengrave street	I	I
Rutland street	5	5
River street	I	..	..	3	4
Railway terrace	I	I
Redshaw street	I	..	..	I	2
Stockbrook street	I	..	I	2	24	28
Siddals road	I	9	10
Shaftesbury street	I	6	7
Shaftesbury crescent	2	..	10	12
Sherwood street	10	10
Sacheveral street	I	..	3	4
Sitwell street	I	5	6
Sitwell street, Back	I	I
Strutt street	I	I
Silver Hill road	2	2
St. James' road	2	4	6
St. Thomas' road	I	9	10
Stanhope street	I	..	I	6	8
Spa lane	5	5
Stanley street	I	I
St. Peter's street	I	I
Shaw street	2	2
Slack lane	I	4	5
St. Luke's street	3	3
St. Michael's lane	I	I	2
St. Alkmund's Chyd.	3	3
St. Mary's gate	6	6
Sidney street	I	I	2
Searl street	I	..	..	..	..	..	2	3
Stafford street	I	I
South street	I	I
St. Helen's street	I	I	2	4
Stepping lane	I	I
Spring street	3	3
Society place	I	I
St. Werburgh's Chyd.	I	I
Sale street	2	2
St. Paul's road	3	3
Sadler gate	2	2
St. Werburgh's st.	I	I
Traffic street	I	..	5	6
Talbot street	4	4
Twyford street	3	3
Trafalgar street	6	6
Tenant street	3	3
Trinity street	2	2
Trowel's lane	I	I
Thorntree lane	I	I
Uttoxeter New road	10	10
Uttoxeter Old road	I	2	3
Union street	I	..	..	..	2	3

STREET.	Deaths from Zymotic Diseases.								TOTAL.
	Small Pox.	Scarlet Fever.	Measles.	Fever.	Diphtheria.	Whooping Cough.	Diarrhoea.	Deaths from Non-Zymotic Diseases.	
Victoria street	6	7
Vale street	7	7
Workhouse	103	10
Walker lane	23	23
Willow row	9	9
Whitecross street	5	5
Warner street	5	5
Wellington street	5	5
William street	7	7
Wilson street	4	4
Westbury street	I	...	...	...	...	7	7
Wild street	4	4
Wilmot street	6	6
Wright street	9	9
Waterloo street	7	7
Wolfa street...	7	7
Watson street	5	5
Walter street	1	1
Wilfred street	3	3
Whitaker street	9	9
Windmill Hill lane	2	2
West avenue	2	2
Watson street, Little	3	3
Webster street	1	1
Whiston street	1	1
Wardwick	1	1
Wood street...	1	1
Woodland road	1	1
Woods lane	1	1
Yates street	2	...	14	16
York street	2	2